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# Mac ADDICT 18

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Graphics!**

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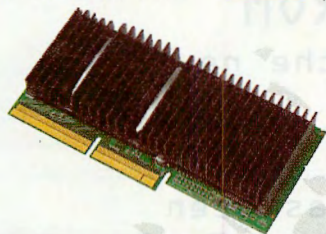
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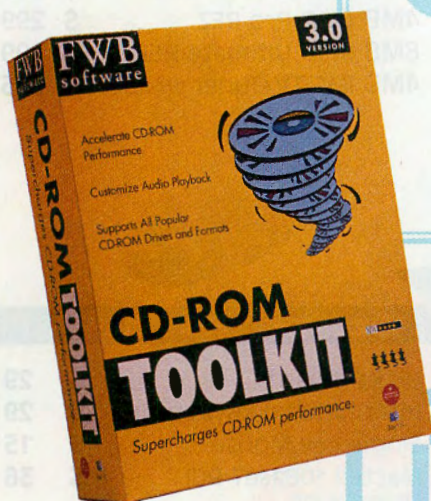
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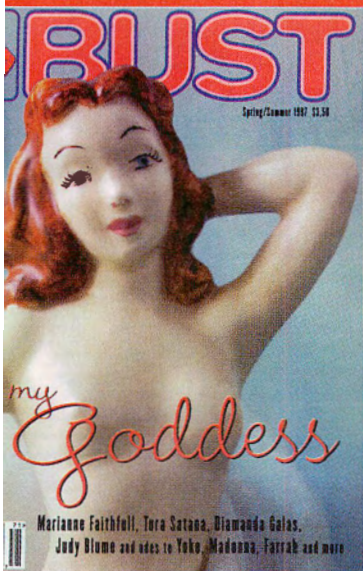
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You need either Photoshop or a little Clearasil for that complexion, son.



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FEBRUARY 1998

# Mac

## ADDICT 18

## highlights

### 26 Zine Zen

Ever wonder how we put *MacAddict* together? What genius lies behind this mag? We'll let you in on our top secrets and show you how you, too, can make your own magazine.

**BY NIKKI ECHLER AND DAVID REYNOLDS**

### 36 How'd They Do That?

We rounded up a couple of leading artists and asked them to create a compelling, complex image using four top graphics programs. Here's what they created and the details on how they did it. **BY ROBERT CAPPS**

### 42 Become a Graphics Guru

Don't let terms like *alpha channels* and *masking* intimidate you. Master these concepts, and churn out award-winning art in no time. **BY STEVEN ANZOVIN AND RAF ANZOVIN**

## how to

### 76 Use Pop-up Windows

Learn how to use Mac OS 8's pop-up windows to create a powerful file-storage and -access system.

### 78 Create Frames, Part 2

Frames, frames, every Web site has frames. Here's how to make 'em.

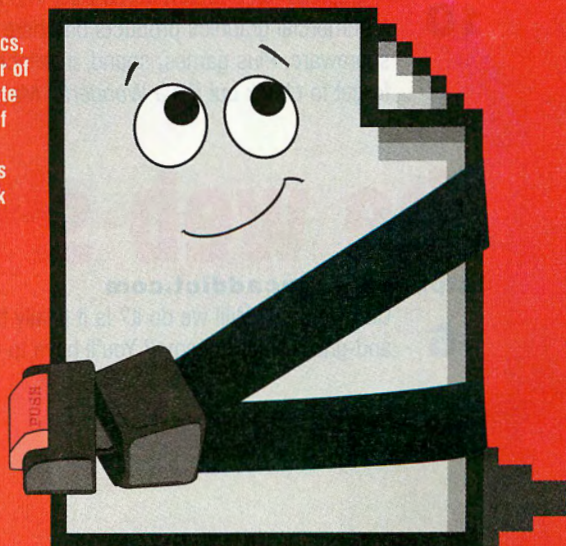
### 82 Know It All

Our newest column provides tips, hints, and help with everything Macintosh. This month we highlight Mac OS 8's contextual menus.



Ken and Adam dropped 312 splashes of paint before finding the perfect one. Olivier Woltson made it boogie in 3D.

Buckle up and secure your docs, oh lucky winner of Aladdin's Private File. The rest of you, hang on for this month's contest—check out Get Info.





Nope, it's not something out of *Alien Resurrection*. It's yet another digital camera.



# every month

## 6 Editor's Note

Annual predictions from *MacAddict* editors.

## 8 Letters

No, we won't give you a new G3 Mac. Stop asking!

## 18 Get Info

We're not the only ones ganging up on Microsoft—find out who else is and why. Plus the best Mac OS 8 books, a really hard contest, and a bunch of great ideas for filling your PCI slots.

## 22 Cravings

Gasp, pant, wheeze. We're not ill, just excited about these products.

## 50 Reviews

A fistful of great games plus some practical stuff, too.

## 86 Ask Us

Zip drive questions, calculating folder sizes in Mac OS 8, and more.

## 88 PowerPlay

A sneak peek at MDK and its host of wackoid aliens.

## 112 Shut Down

Straight from our twisted minds into your hands.

# the disc

10

A graphics fan's dream come true, The Disc features demos of the best commercial graphics products out there as well as a host of graphics shareware. Plus games, sound, interface, and text goodies. And don't forget to check out *It's a Wonderful Mac*—Jimmy Stewart would cry!



# the web site

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16

Can we do it? Will we do it? Is it finally time to change our garish purple-and-green color scheme? You'll have to visit our Web site to find out!

# Mac ADDICT

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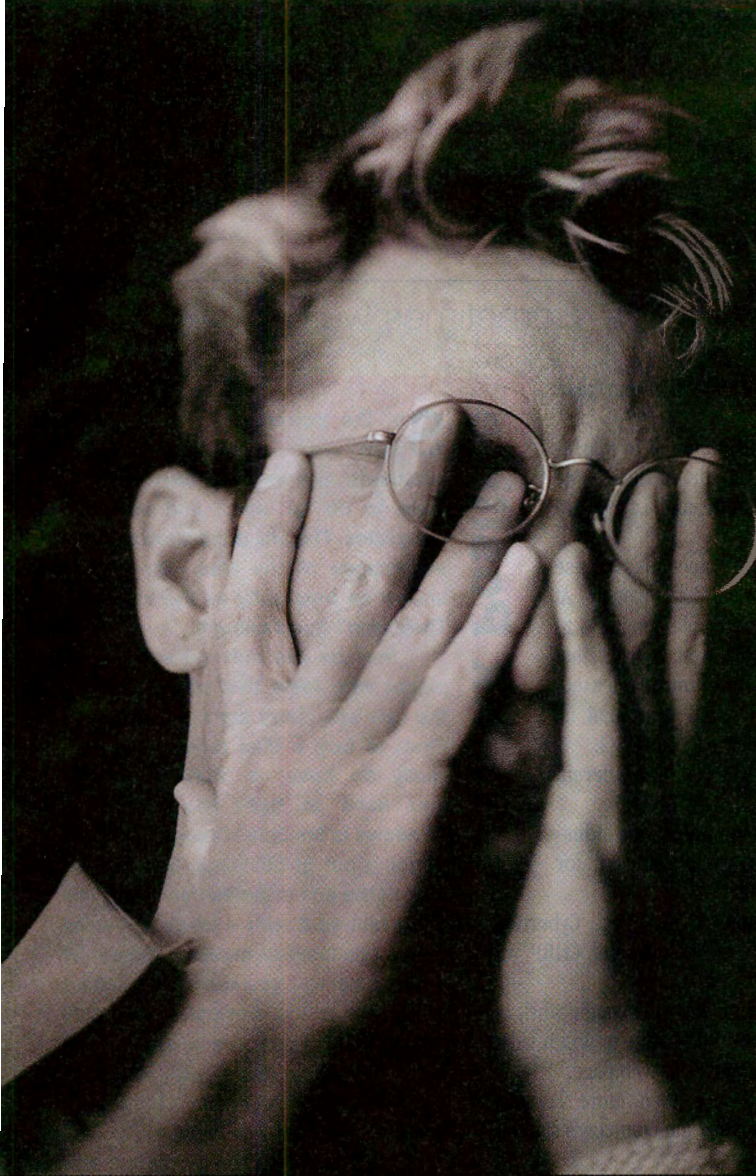
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RC: 'Cause it's all about you, babe. Mari: CaboWabo needs you. Editorial & art corrales, and Cheryl: thank you for playing with me. This space is yours. xo jmi







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# editor's note

Once a year we dare to predict the future. Sometimes we get it right.

It's that time of year again—ring out the old, ring in the new, and predict what the next year might hold (you see, I'm writing this just before Christmas '97). We can't guarantee that what we predict will happen, but we *can* guarantee that not all of it will. And we're pretty sure that we'll surprise ourselves. Last year's tongue-in-check prediction (Jan/97) that Gil Amelio would make the cover of *Forbes* wasn't far from wrong—he made the cover of *Fortune* at about the time our issue hit the stands. So onward with *MacAddict*'s predictions for 1998.

- Apple will introduce something really new, something really stunning, something that will get people's attention. Yes, we're serious about this. We think Apple is hellbent on creating a hot product that proves the company is as fast and innovative as ever. And we think Apple can do it.
- Apple will extend UMAX's Mac OS license into 1999.
- Steve Jobs will implement a dress code at Apple—black turtlenecks and jeans will be become musts.

- Macs will hit 500MHz this year. Smokin'!
- The press will continue to speculate about what sort of deal Apple and Oracle (Steve and Larry) are cooking up.
- Rhapsody will meet its release schedule all the way through. At least, as long as Apple continues to be vague about exactly what that schedule is. And, once released, Rhapsody sales will soar until its market share far exceeds OS/2.
- Macs finally will come in different colors.
- At last, the communications industry will agree on a standard for 56K modems.
- Cable modems, ISDN, Java, Cyberdog, firewire, push technology, and CHRP will continue to be non-issues.
- Streaming technology will actually work on your Macs so you'll be able to watch video right from your favorite Web page.
- Microsoft will face even more lawsuits. This is the year that the company's star will start to fall.
- Apple will continue to cut costs—finally reducing the Apple Campus to the Apple Quad.
- Flat panel displays will become affordable, at least for those consumers in the upper buying range.
- Apple will become profitable again.
- Fast Ethernet will hit the big time.
- Someone, somewhere will reveal that IDE (the hard drive connection technology that competes with SCSI) is fundamentally messed up (a technical term).
- Electronic commerce will start to take off as people find more innovative ways to sell items on the Net. Already you can buy and download single tracks of music. Efforts like this will change the way we buy.
- Version 7 of Microsoft Internet Explorer and Netscape Navigator will ship.
- And finally, Fred Anderson (Apple's Chief Financial Officer and the only VP never to have worked at Next) will forge documents to prove that he really did work at Next once, in order to prevent his untimely departure from Apple. —Cheryl England and the editors at MacAddict

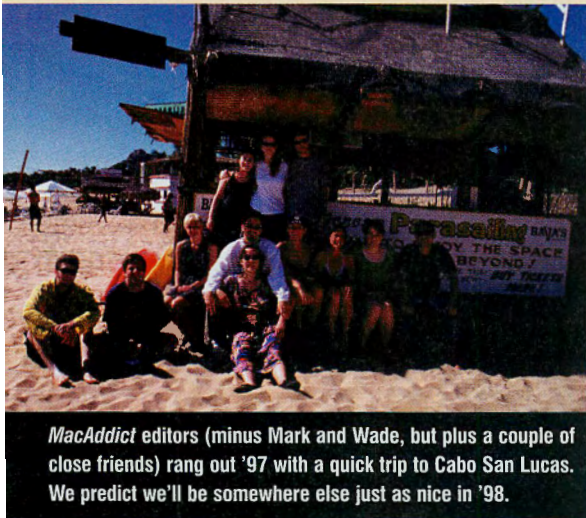
## Think Positive

So, the powers that be at Apple finally create ads for television and billboards, like we've all been begging them to do for ages, and everyone complains. The ads don't show the true advantages of the Mac. They aren't shown as frequently as the Intel ads. They aren't good enough.

I may be the only person on the planet who feels this way, but I like the new ads. They are right on target. First, to buy a Mac these days, you really do have to "think different." You have to fight the buzz that Windows is the safe choice, that Apple is going out of business. Second, the look of the ads is distinctive. If you see a big billboard with a black-and-white image of a famous, creative, differently thinking person, you know it's an ad for Apple. Third, the campaign has only just started. There are a lot of great tricks that Apple can employ to further the message—tricks that I think we'll see over the next few months.

Granted, I'd love it if Apple's ads showed up more frequently on television. I'd love it if, for every Intel ad, there were two Apple ads. I'd love it if Apple ads appeared on the back of cereal boxes and on grocery shopping carts the way Microsoft ads do. But advertising costs money—big, huge money. The kind of money that could break Apple right now.

Instead of complaining about the ads and sending nasty letters to Apple, I'd much rather see people expending energy pointing the billboards out to friends, taking pride in the ads. "Check it out," you might say, "Isn't that a great ad that Apple created?" Say this enough and others will start to agree with you. Try to learn about the people in the ads. Point out to your friends all the fun Jim Henson could have had with a Mac. You're creative people. You can think of more ways to use the ads to the Mac's advantage. It's certainly the better use of time.



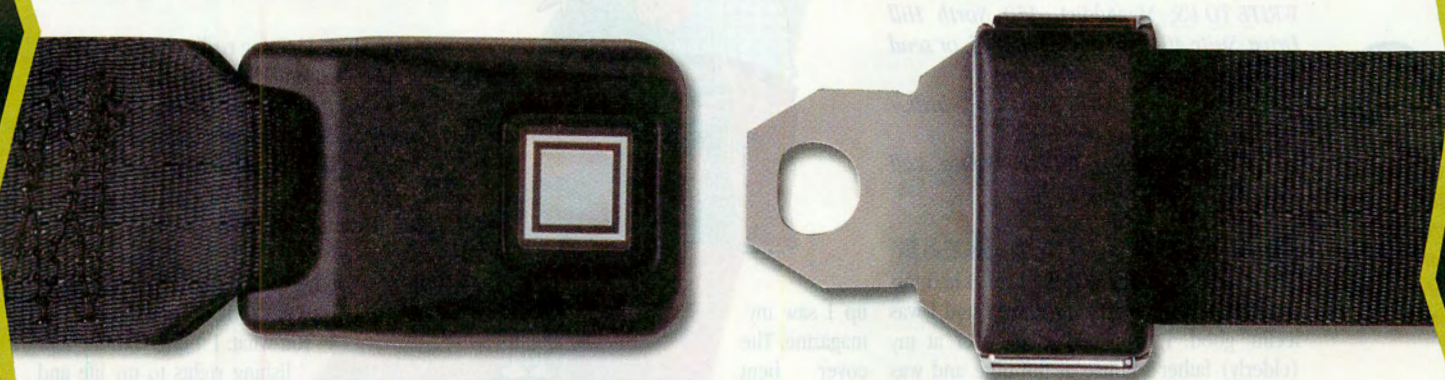
MacAddict editors (minus Mark and Wade, but plus a couple of close friends) rang out '97 with a quick trip to Cabo San Lucas. We predict we'll be somewhere else just as nice in '98.

Apple is hellbent on creating a hot product that proves the company is as fast and innovative as ever.



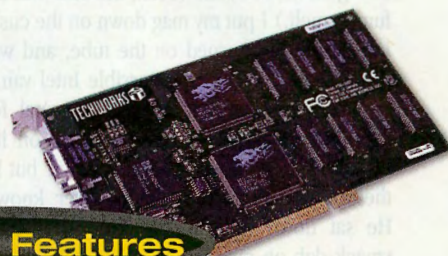
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# letters

You keep trying to make deals with us. Well, it just won't work!

## This Month

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**GET ON, GET ACTIVE.** Talk to us and to other Mac addicts at the Web site.

## HOPE HE CAN'T READ

So there I was, basking in the light. I had just read the November '97 *MacAddict* and I was feelin' good. I happened to be over at my (elderly) father's house at the time and was sitting on his old sofa. (Yeah, the one with the funny smell.) I put my mag down on the cushion beside me, turned on the tube, and was instantly horrified by that terrible Intel van. I switched the channel to CNN (unusual for me). Sure enough, my dad came in on his walker. (OK, he doesn't have a walker but by the way he walks you would never know.) He sat down right beside me...yup, right smack dab on my nice, new November issue of *MacAddict*. He noticed that something wasn't quite right when I pointed at his backside and tried to mutter a whimper. As he sat

up I saw my magazine. The cover bent. The pages torn.

My first instinct was to cry and suck my thumb. What have you people done to me? What is wrong with me? —EDU\_SBA

## OH NO. YOU'RE PERFECTLY NORMAL.

Wait a sec...You guys are just dorks that spend too much time indoors, too!!? WOW!! I thought I had some weird psychological problem or something. Now I have to finish shaving my tongue. Bye. —ADAM BACKSTROM

I'm doing a little grocery shopping with my other half trying to educate him on sodium, fat content, etc. in the diet. So he's picking out all his favorite foods and I'm looking at the labels saying, "try to find something with a little less sodium and fat in it!" Of course, he's giving me all these funny looks (which he shouldn't, because he's shaped like a toothpick with an olive stuck halfway down it), so I'm really not enjoying this. Then he picks out another product which I grab, look at the label and exclaim, "This has 750 MEGABYTES of sodium in it!" Well, he just starts laughing like crazy, everyone within earshot is looking at me really strangely, and I have no idea what's going on until he chuckles, "MEGABYTES!" I didn't want to go grocery shopping anyway. —BRENDA ZIZZA, AROOSTOOK COUNTY, MAINE

## UH UH. NO DEAL.

Notice how I didn't try to hit you up for any

free stuff? I think that means that I'm special...someone special who...say...deserves free stuff? What do YOU think? —JOHN VENZON

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**WANTED:** Page 53-54 of *MacAddict* Issue No. 11. Or even a reasonable facsimile. —SPENCER ROZELL

So here's the deal. I'm a little short on cash right now, so I'll tell you what: I'll give you the publishing rights to my life and fill you in occasionally.

That way, if something amazing happens to me, like an alien abduction (they said they'd come back for me soon), you'll have the story right away!! Yup, and all that for just \$500 dollars a week (er, plus a new Power Mac. Anything with a 300MHz CPU is fine...). —SONICBEAN2

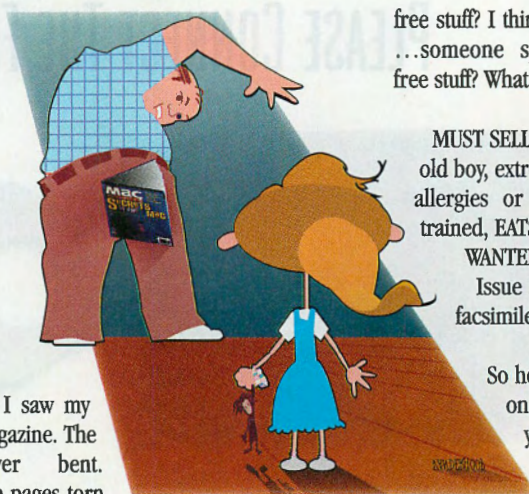
## WE PREFER A DEAD PARROT

Here I sit in my room with a 102-degree temperature. I've watched *Monty Python and the Holy Grail* at least five, no, three times, and read *MacAddict* 'til my fingers bled. And I'm wondering how to get in the letters section...aside from building a large wooden badger, I have no idea...perhaps if I gave you a "shrubby," or cut down a tree with a her-ring...all I really want to know is what the average air speed velocity of an unladen African swallow is...I can't find it in any of my *MacAddicts*...NI! NI! —MATTHEW BOULANGE

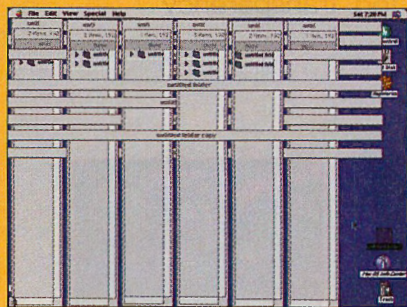
## DANG IT!

The spine of your December issue says it's Volume 2, Issue 16. It should be Issue 12. Don't mess with my head that way. I'm under far too much stress as it is. —SUSAN A. ARENDT

I know this makes me seem nit-picky, but on page 58 of the December issue, you said that "Although Hornet 3.0 is an F-117 flight simulator..." Note the game's title, F/A-18 Hornet



## RECENTLY SIGHTED



## GET A LIFE!

Cheryl Graham submitted this nifty screen shot under the heading of "You Know You're a Bored Mac Addict When...." Yup, folks, you guessed it—it's folder weaving! And, yup, we'd guess that Cheryl was truly bored that day.



3.0. Think about that one... —ROB BARTLETT

In the article "The Mac's Hidden Secrets Revealed" (Nov/97, p38) we stated that Apple's youngest beta tester was 14. He's not—at 12, Mark Frenkel is the youngest tester—and he's been at it since he was 10.

## TRAITOR!

Is it absolutely true that you don't have one PC at *MacAddict*? Don't get me wrong—I own two Apple computers and two Apple T-shirts, but this seems strangely peculiar. Yeah, yeah, call me a traitor for even considering it. —ELLIOTT MALLEN

## HEY, YOU BROUGHT IT UP!

If you told people how easy it is to get printed in the Letters section, I bet you would get more. Letters, I mean. Get more LETTERS. Geez, what kind of perverts are you? —JUSTIN REESE

I noticed in the last staff video you were showing quite a bit of leg. Will this continue? Will we soon be able to watch risqué clips along with our monthly shareware? I, for one, am all for the idea. Full frontal nudity darn it, it's the American way! —TONY WALSH

## YOU KNOW YOU'RE A MAC ADDICT WHEN...

...you set your alarm clock to 6:04 instead of 6:00. —ROMAN POHORECKI

...you say EEP!!! when someone bumps into you. —LEONG KOK WAI

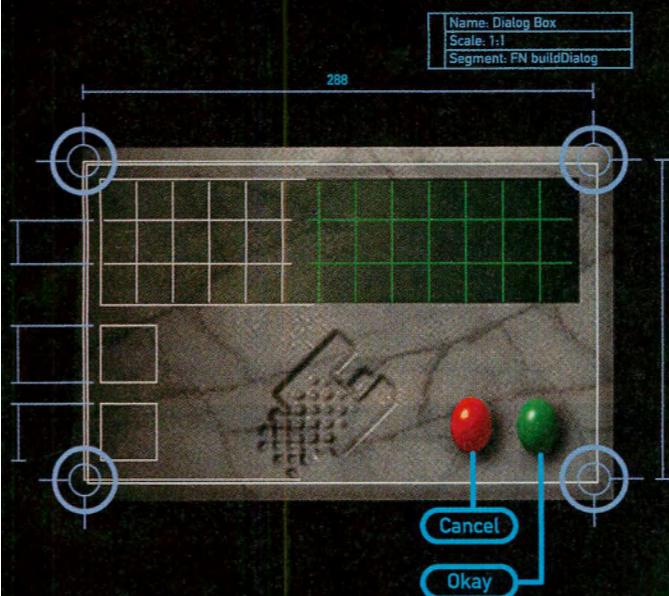
...you think the Boston Marathon is the latest game from Bungie. —WILL ORAM

...you stick with a 68k Mac because the "PC" in PowerPC frightens you. —NICK HANCE

...you try to use Stuffit to pack for a vacation. —JOE DIDONATO

letters

## FUTUREBASIC II



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...to create this really cool desktop publishing program.

# Classroom Publisher®

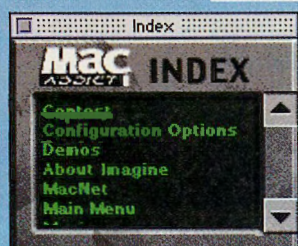




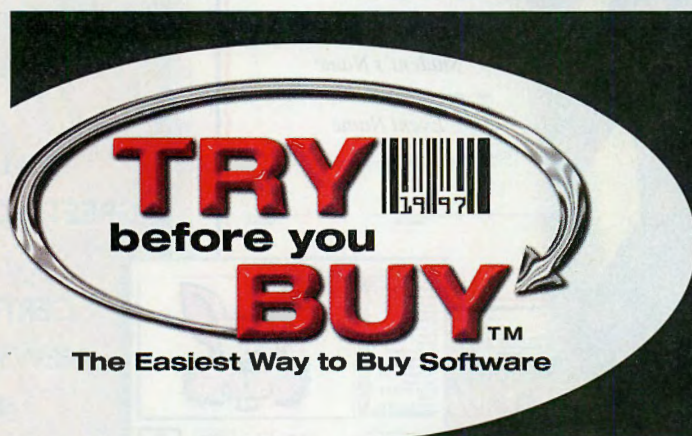
# the disc

More graphics tools than you can shake a Wacom tablet pen at.

## INDEX



**E**ver trying to add ease of use to a Macromedia Director interface, this month *MacAddict* introduces the floating Index palette. Click on Index to get this handy jumping point to anywhere on The Disc.



## This Month's Inventory

Battle-Girl	Game
Cap'n Midnight	Utility
DragNet	Internet
Duke It Out in D.C.	Game
Eudora Pro	Email
FlashBack	Utility
GearBox	Internet
Graphic Converter	Graphics
PowerTab	Internet
ShrinkWrap	Utility
Square One	Utility
TCalc	Video editing

**T**his month's disc comes packed with all the software you need to try out the techniques in our Highlights section. Mostly. And if you're not a Dali, dally in the *MacAddict* movie theater viewing a special production: *It's a Wonderful Mac*. Wade makes a killer Jimmy Stewart. —KT



## GETTING STARTED

1. Pop The Disc into your CD-ROM drive.
2. Double-click the *MacAddict Tour* icon for PowerPC or 68K Macintosh.
3. Have fun!



## REQUIREMENTS

Any Mac can access the shareware, demos, and System software from the Finder. Accessing the full CD-ROM interface requires 12MB of real RAM with System 7.1 or earlier, or 16MB of real RAM with System 7.5 or later.

**GETTING HELP:** Problems with The Disc? Go to <http://support.imagine-inc.com>.





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## OUR DISC SPONSORS

To find immediate information from our sponsors, go to the Index (Option-click any help screen). Or you can wait until you see a message from them in the lower right-hand corner of the main screen. Clicking on the message causes a TV screen to slide down from the top of the page, showcasing more information. You also can access sponsor information from the main window in the Finder.

#### Aspyr Media—Carmageddon



888-212-7787

<http://www.aspyr.com>

Pit your wits and wheels against 25 maniac drivers, each featuring accurate driving physics and realistic collision damage; or try the multiplayer mode. Thirty-six fully navigable, stomach-churning race circuits and five different race environments give complete freedom of movement in your quest to become Prince of the Pile-up. Waste contestants, pedestrians, and farmyard animals for credits. Exchange credits for damage repair or cool features. Crash, crumple, burn, skid, and jump in glorious 3D. Pedestrians equal points.

#### Bungie—Myth



800-295-0060

<http://www.bungie.com>

Myth is a tactical-level game of epic battle set in a fantasy world. A multimediac game, Myth gives gamers unprecedented freedom to view the terrain and their forces, orbiting around their heads or zooming in for a close-up. Mastery of formations and disciplined movement of armies is critical to success. Myth features cross-platform networking, while Bungie's MetaServer system makes Internet play simple. Myth includes maps designed for networking and alternate networking scenarios such as Assassin and King of the Hill.

#### EarthLink—TotalAccess



800-395-8425

<http://www.earthlink.net>

TotalAccess is EarthLink's award-winning Internet connection software. It includes Netscape Navigator and automatically configures your computer for complete Internet access in less than five minutes. Use the MacAddict CD to get free time and save the normal \$25 setup fee. Then enjoy unlimited access for \$19.95/month. EarthLink membership comes with a personalized start page; a free 6MB Web site; unlimited email; toll-free, 'round-the-clock tech support; and more.

#### FWB Software—Hard Disk Toolkit and CD-ROM Toolkit

800-581-4382

<http://www.fwb.com>

Turn to FWB Software for all your storage management needs. Format, partition, optimize, password-protect, and optimize virtually any SCSI or IDE device with Hard Disk Toolkit, the industry-acclaimed PowerMac-native device driver and disk management utility. Supercharge CD-ROM performance with CD-ROM Toolkit, the only CD-ROM utility you will ever need—now with

DVD-ROM support, faster caching, and a graphic equalizer to enhance audio CD playback. Maximize your storage capacity with Storage Wizard, the housekeeper for your Mac that magically archives, compresses, or deletes old unused files to make room for the stuff you actually use. FWB Software is number one in storage management.

#### Green Dragon Creations—Gridz



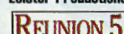
888-824-0200

<http://www.gridz.com>

[gridz-orders@greendragon.com](mailto:gridz-orders@greendragon.com)

Green Dragon Creations is proud to introduce Gridz, a fast-paced strategy game for all ages. You lead an army of ToolBots: Builders, Strikers, and Hackers. Your objective is to take over NetSpace. Watch for enemy Toolbots, who will try to destroy your domain. Gridz is available now for only \$29.95.

#### Leister Productions—Reunion



717-887-1378

<http://www.leisterpro.com>

Reunion is a genealogy software program that helps you document, store, and display genealogy information: names, dates, facts, notes, sources of information, and digitized pictures. Reunion automatically creates common genealogy reports, charts, and forms, as well as birthday calendars, mailing lists, questionnaires, and indexes. It even calculates relationships, ages, and life expectancies. Reunion also displays and prints large, high-resolution, graphic wall charts.

#### MacSoft—Civilization II

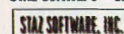


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<http://www.wizworks.com/macsoft>

Make every critical social, economic, and political decision as you build an empire to span history. Compete against some of the greatest leaders of all time. It's strategy. It's discovery. It's your destiny. So plan your every move carefully. Because in this game, either you stand the test of time or you're history.

#### STAZ Software—Classroom Publisher



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<http://www.stazsoftware.com>

Classroom Publisher is a desktop publishing program designed with schools, teachers, and students in mind. It allows anyone to quickly and easily create calendars, clip art, greeting cards, and all kinds of reports, banners, and stationery without even picking up a manual! It was written in the world's fastest Basic compiler—FutureBASIC, also sold by STAZ Software. See the Sponsors section on The Disc for more information.

#### TechWorks—Power3D and PowerCPU



800-888-7488

<http://www.techworks.com>

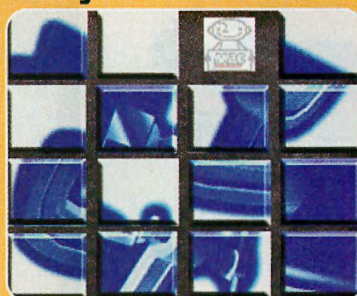
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# CONTEST

## Win!Win!Win!Win!Win!Win!

Get your very own copy of Stuffit Deluxe 4.5 with SpaceSaver. To get to the contest, open the index, and click on the word **contest**. When you solve the puzzle, the CD-ROM will give you a code. Enter this code on the Web site for your chance to win Aladdin Systems' Stuffit Deluxe 4.5. Woo hoo!

### Can you turn this...



### ...into this?



## INTERFACE TWEAKS

Aaron Light 1.2.3

BeHierarchic 3.1

Contextual Menu Plug-ins

DragStrip 3.0.1

DragThing 2.1

Finder View Settings 1.1

FinderPop 1.5.1

GoMac 1.4.3

Look Mom, No Hands 1.5.1

NOVA 2.6

Pretty Scroll 1.0.3

Small Screen 1.3

## KIDS GAME DEMO

### SpyFox



Follow SpyFox in this goofy espionage spoof by Humongous Entertainment as he outsmarts the monopolizer of the world milk supply. This colorful game has all kinds of great paths to explore and puzzles to solve, plus some terrific commentary by SpyFox. The game begins with

SpyFox receiving his secret instructions hidden in his airline meal (yech!), then takes us to the island of Acidophilus in search of a clump of feta cheese, the only clue to locating our villain since he took over Amalgamated Moo Juice, Inc. Aside from the functionality of the game itself, some of the best details in this title include flies, fish, and adorable multicolored frogs that jump out of corners and barrels and from between rocks when clicked. A sure winner for the kids. —JG

MacAddict18:Commercial Demos:SpyFox



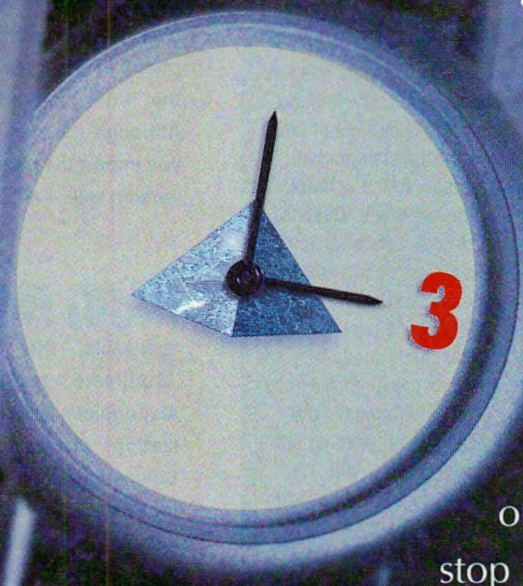
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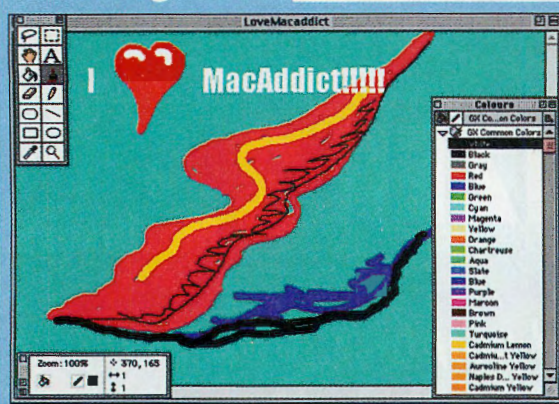


Mac OS



# the disc

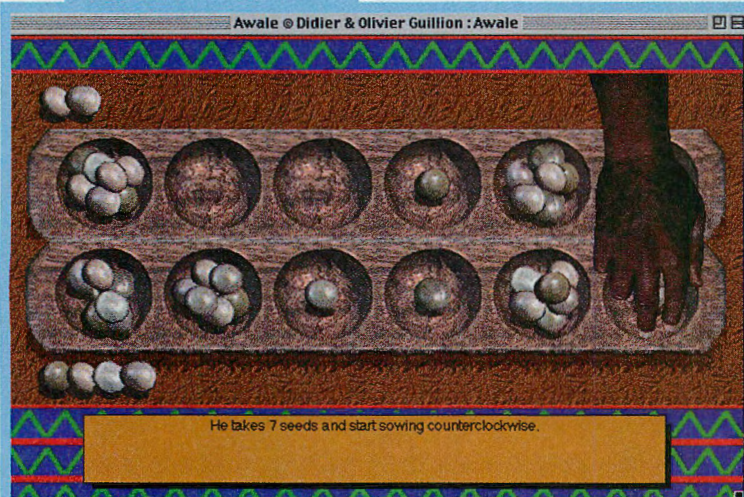
## GRAPHICS Painting 1.1



This little application by Sarwat Khan does something rarely seen these days, and that is to paint, and nothing else. It accomplishes this quite well without unnecessary extras to gobble memory. Painting is equipped with common palettes, including Apple and grayscale, plus many familiar tools, such as the marquee and paintbrush. Unlike its predecessors, however, this program is made for current uses such as designing Web graphics. Images can be exported as JPEGs as well as saved in PICT format. —JG

MacAddict18:Graphics & Sound:Painting 1.1

## GAME Awale

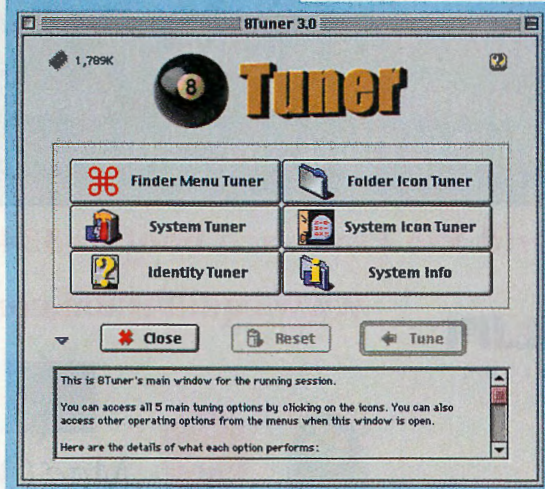


Simple concepts like this one illustrate how unnecessary it is to put lots of bells and whistles in a game. According to the authors, Didier and Olivier Guillion, Awale dates from ancient Africa. It is a game of territory and strategy in which each player's goal is to capture as many seeds from the board as possible. A catchy drumbeat introduces the splash screen, leading into a colorful window with 12 stone-tone bowls filled with four seeds each. A yellow

window on the bottom of the screen lets you know how many pieces are in each bowl and where each move will wind up, although your opponent will quickly outsmart you if you don't think fast. —JG

MacAddict18:Fun & Games:Awale 2.2

## UTILITY 8Tuner



Dig into your Mac's resource files with this fun shareware program. Unlike many of its kind, the interface is relatively simple and visual, so you don't have to fiddle with code. The single window displays options to tune everything from System Icons to the identity of the machine and the more delicate areas in the System itself. A help window on the bottom of the window describes each option so that you know what you're getting into every time you push a button. —JG

MacAddict18:User Interface:8Tuner 3.0

## WINNER!

Oliver Scotting saved Cheryl! Pulling out a bad diskette, Oliver was able to stop the Penterminator from erasing Cheryl from history. In honor of this great feat, Oliver receives a copy of Worms from Team 17 Software. —KT

## STEVE!

You, too, can gussy up Steve Jobs as seen on page 71. On The Disc, we have both a demo of *Cosmopolitan Virtual Make-over* and a public relations photo of the man himself in the "from MacAddict" folder. Although the demo won't let you import the picture, the full version will. —KT

## HARD DRIVE

In this, the final, last, ultimate installment of MacAddict's exclusive serialization of David Pogue's Sillycon Valley thriller, all loose ends are tied, the consultants are paid, and just enough threads are left for a sequel! Don't miss Pogue's latest, *The Microsloth Joke Book* (Berkley Books, ISBN: 0425160548), available in a real bookstore. —KT

## GRAPHICS GOODIES

BigPicture 3.7  
ClayScape 3D  
D' Studio 1.1  
Drop•Preview 1.0.1  
DSP Screen Collection V4  
Font Gander Pro 1.2.7  
ImageViewer 4.5  
Painting 1.1  
QuickNailer 1.4.1  
RenderBoy



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**Works on any file** If your application saves files, FlashBack will protect you. From word processors to graphics programs, from databases to spreadsheets, from HTML to C++.



**Instant file recovery** Restore any file you've protected just by double clicking. No confusing procedures, no complex operations. It doesn't get any faster or easier.

Plus, FlashBack works with both local and networked files.

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Keep multiple versions of your important files without gobbling up disk space. FlashBack makes only one complete copy of your file. Previous versions are tracked through tiny "diff" files containing only the changes, or differences, between one version and the next. The result? You can save five, ten, twenty or more versions of a file in less room than you would use hitting 'Save as' just a couple of times!

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## the web site

## JANUARY/FEBRUARY

By Mark Simmons &amp; Jennifer Gwartz

## MONDAY

**19** Say out loud seven times, fast: "To savor the Site of the Week is simply scrumptious, especially as a start to the schedule that coaxes smiles from the lips of our readers." **Lips warmed up now?**

**26** While you're still trying to remember to **date your checks** with '98 instead of '97, we're already back in top form. And just to prove it, here's our favorite Site of the Week.

**2** We're not so sure about getting out of bed, but that plucky little groundhog has a different idea. Is spring on its way? Check out our **Site of the Week** and find out!

**9** Our Site of the Week isn't for the weak of heart. Gird those loins and come see!



## TUESDAY

**20** Happy Grandmother's Day (**Bulgaria**)! While you think of something nice to do for her, we'll come up with a nifty Web Exclusive.

**27** Here's an idea... this was the day in 1880 on which Edison patented his electric light bulb, so today we're going to surprise you with **an invention of our own!**

**3** Happy Bean-Throwing Festival (Setsubun) to our Japanese readers (and to everyone else as well)! We **fling our own beans** in a random Web Exclusive.

**10** Never mind that last-minute quest for flowers and candy for that special someone—plop yourself down at your Mac and scope out **today's news** from your more special friends at MacAddict.

## WEDNESDAY

**21** In our exciting new Wednesday feature, the **MacAddict Mailbag**, we give our readers a chance to rant, rave, and generally vent their spleen. Read it and weep!

**28** If you've half a mind to **write us a screed**, that's all you'll need! The only requirement for the MacAddict Mailbag is that it be lively and opinionated.

**4** Are you talking to us? We don't see anybody else here, except for a few thousand of your fellow Mac addicts, so you must be **talking to us** in this week's MacAddict Mailbag.

**11** Departing entirely from the plane of the **normal and sane**, we feature some extra interesting reader communiqués on this Weird Letter Wednesday.

## THURSDAY

**22** Today's Shareware Pick of the Week reminds us of sunnier times and climes when we bobbed in the salt water and squished sand in our toes.

**29** In honor of Thomas Paine's birthday, we present a most commonsensical selection for our Shareware Pick of the Week.

**5** On this day in 1870, the first motion picture was shown to an audience in Philadelphia. With our Shareware Pick of the Week at your disposal, perhaps you'll be setting your own **multimedia milestones**.

**12** Nine score and, um, nine years ago, **Abraham Lincoln** was born in a log cabin in Kentucky. Today, the Shareware Pick of the Week comes to us from a humble programmer's garage. Coincidence? We think not.

## FRIDAY

**23** Hey, it's Friday! Whatcha wearing that tie for? Loosen up and join us for this afternoon's Reader Art Gallery opening.



**30** Don't worry, winter will be over soon. Meanwhile, sun yourself in that healthy CRT glow while you read up on all the latest news.



**6** Yay! We've made it through another week! We'll relax, unwind, and let you guys do all the work as you tackle our latest **topical poll**.

**13** We're in the mood for **luuuuuuv** here at MacAddict, even on Friday the 13th! You will be, too, when you read this week's Web Exclusive.



**SEND YOUR  
MAC A VALENTINE!**

Come by the MacAddict site February 9 through 13 to send your special machine a note from the heart.

The MacAddict calendar previews just a sample of the pure Mac goodness available at the Web site. Come by every day to check out Mac news, software releases, and gossip.



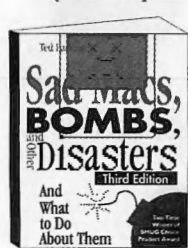
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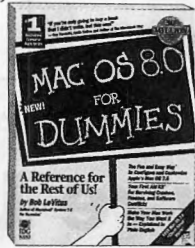
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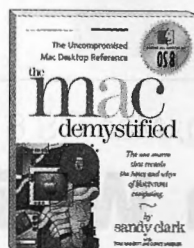
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Mac OS 8 for Dummies



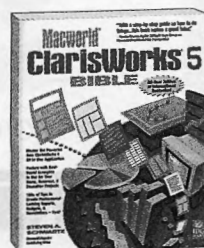
59462 \$34.99  
Mac OS 8 Bible



62429-2 \$34.95  
Mac Demystified  
counts as 2 choices



59241-2 \$44.99  
Macworld Mac  
Secrets, 4/e  
counts as 2 choices



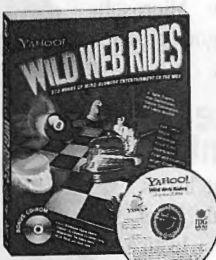
60570 \$34.99  
Macworld ClarisWorks 5  
Bible



32283-2 \$45.00  
Photoshop 4 Complete  
counts as 2 choices



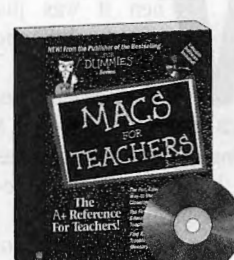
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41819 \$19.99  
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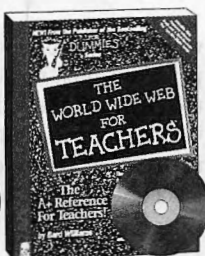
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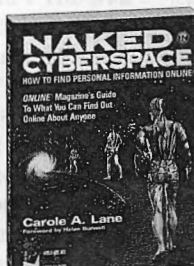
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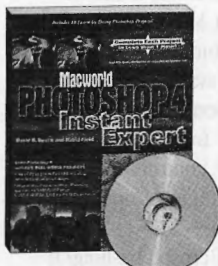
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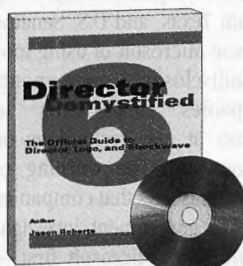
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A-ER7

Mac Addict 2/98

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# get info

More Microsoft bashing; Mac OS 8 tips; win CodeWarrior; the MacAddict Index

## Kick 'em While They're Up

*Microsoft critics gang up on software giant*

**W**hen it was just Apple complaining about how Microsoft stole its user interface elements, nobody paid much attention to alleged Microsoft wrongdoing. But Microsoft now has its paws in every honey pot imaginable—online banking, media delivery, media creation, operating systems, consumer software—and also is snapping up electronic rights to the world's art. People other than perennial Microsoft bashers are starting to notice. Even consumer advocate/presidential candidate/all-around gadfly Ralph Nader has decided that what Microsoft is doing isn't in the public's interest. The list of critics

jumping on the Microsoft-bashing bandwagon grows longer every week.

### The Justice Department

At the top of that list is Attorney General Janet Reno and the Justice Department, who want to fine Microsoft a *million* dollars a day. (Of course, Bill could fork over a million bucks a day for a century and still not go broke; see Jan/98, p24.) Why such a stiff fine? PC hardware vendors claim that Microsoft forced them to remove Netscape Navigator from the machines they sell in favor of Microsoft Internet Explorer or forgo a Windows 95 license. In doing so, they claim, Microsoft violated its former agreement not to abuse its market-dominant position when entering new areas.

### Nondisclosure Agreements

Several state attorneys general, including Dan Morales from Texas, and U.S. Senator Orrin Hatch accuse Microsoft of using too-restrictive nondisclosure agreements (NDAs). Companies sign NDAs to get advance looks at new technology or business arrangements. The wording of Microsoft's agreements says that companies can't participate in government investigations without informing Microsoft first—which would hardly be an incentive for the company in question to cooperate with the government.

**Ralph Nader** Nader jumped into the anti-Microsoft fray by organizing the conference Appraising Microsoft and Its Global Strategy. With session titles such as "No One Should Own the Alphabet," "On the Digital Commerce Toll Road," and "The Microsoft Antitrust Consent Decree That



Wasn't," Nader wasn't exactly going for the objective viewpoint. Microsoft was invited, but only after the conference agenda had been set. It's hardly surprising that the company chose not to attend, but the conference grabbed a lot of headlines anyway.

**No Beans** Sun Microsystems doesn't want any money, but the company sued Microsoft anyway. Microsoft doesn't want an industry standard to exist unless it can control it. Sun doesn't want Microsoft to take control of Java on Windows. Microsoft changed just enough of Java on Windows to start a standards war—one that, given its clout, Microsoft hopes to win. Whoever controls Java potentially controls the next great programming language/operating system/Internet standard.

Why all the current Microsoft bashing? It wasn't too long ago that people looked on Apple as a big whiner when it came to Microsoft. Even Steve Jobs, when he announced the Microsoft deal last August, said, "We have to let go of the notion that for Apple to win, Microsoft has to lose. For Apple to win, Apple has to do a really good job." Now, however, Microsoft is starting to encroach on more and more people's turf—and the turf is pushing back. —KT

### Microsoft "Myths"

**F**ortunately for Microsoft haters everywhere, the company has gathered all the current round of rumors, accusations, and lawsuits into one place: <http://www.microsoft.com/corpinfo/myths.htm>. "Setting the Record Straight" offers responses to seven alleged myths:

1. Department of Justice antitrust allegations
2. Ralph Nader's conference
3. Sun Microsystems' lawsuit
4. Illegal nondisclosure agreements
5. Internet service providers and browser choice
6. Encarta encyclopedia content manipulation
7. Encarta giveaways to grab market share

We really enjoyed visiting the site, especially since we didn't even know about some of the accusations. For instance, Myth 6 is that Microsoft changed the entry on Bill Gates in the company's Encarta product to make him look good. The company's response is that there wasn't one in the first place. It offers the entries for Steve Jobs, Netscape Communications, Oracle, and Sun as examples of fair reporting. A presumably unintentional benefit is that it also gives us a glimpse of whom Microsoft considers its competitors.



# Performance Tweaking 101

## Sweep out that System Folder

If you are using Mac OS 8 and just happen to find these files in your System Folder, get rid of them: Move them to another folder on your hard drive, restart, and continue to use your Mac. Odds are, you won't need them anymore. If, after a couple of days (or weeks) of using your Mac, you don't run into any problems, you can probably throw them away to save yourself some hard drive space. —DR



get info

### Any of the CFM-68K shared libraries:

- InterfaceLib
- StdCLib
- AppleGuideGlueLib.68k
- DragLib
- QuickTimeLib
- ThreadsLib
- ObjectSupportLib
- AppleScriptLib
- Translation
- CollectionsLib
- FoldersLib

These all have been rolled into the System file.



### Customization control panels:

- Views—was split into Finder Preferences dialog box and View Options dialog box accessible from Finder menus.
- WindowShade—was replaced by Appearance Manager and the Appearance control panel.
- Color—was replaced by the Appearance control panel.
- Desktop Patterns—was replaced by the Desktop Pictures control panel.
- Labels—was incorporated into the Finder Preferences dialog box.



### Finder extensions:

- Network Extension
- Clipping Extension
- Catalogs Extension
- Mailbox Extension
- Mail Folders Extension
- Finder Scripting Extension
- PC Card Extension
- Desktop Printer Extension

These mostly have been built into the new Finder.



### Miscellaneous outmoded stuff:

- QuickDraw GX Printing software—was discontinued and won't work properly under Mac OS 8.
- WorldScript Power Adapter (extension)—was moved into the System file.



## AT YOUR COMMAND

Aside from all the interface tweaks in Mac OS 8, the new Finder includes some handy fresh Command keys. Here are our faves:

- **Control-click**—gives a contextual menu.
- **Command-R**—reveals the original item to which an alias points.
- **Command-Delete**—moves an item to the trash.
- **Command-E**—now ejects a disk without leaving a ghost image behind.
- **Command-Y**—now ejects a disk but leaves behind a ghost image.
- **Command-Option-4**—lets you take a picture of a selection or a window. (Yeah, we know this first appeared in System 7.6, but it's so great that we felt compelled to mention it again.)

### File-sharing control panels:

- Sharing Setup
  - File Sharing Monitor
- Both were replaced by the File Sharing control panel.



## Pick a Card, Any Card



Many Mac addicts have written to us wondering why they would want a Power Mac 9600, now that the spiffy Power Mac G3s are here. Well, aside from the fact that the floating-point performance of the 604 processor is way better, Apple's top-of-the-line Macs offer expandability options not available in the midrange and low end. That's right, you spend a couple thousand dollars more for a bunch of empty space!

It's fairly obvious what you can put in the extra drive bays: storage devices such as hard disks and removable media. But it took us a good hour of procrastinating, we mean, researching, to discover how you could possibly fill up all six PCI

slots. After all, we thought, what more do you need after you get a RAVE card for games? Use Mark Sproul's excellent PCI card reference to find vendors and product names. —KT

- Video 2D Display
- Video Digitizing
- Video 3D Display
- Audio I/O
- Storage Fast SCSI Interface
- Storage Firewire
- PC Compatibility
- Network Ethernet
- Network Serial
- Network Modem (cable or analog)



FIND MANY POINTERS to PCI cards and vendors at <http://msproul.rutgers.edu/macintosh/PCICards.html>.



## Maxed Out

**B**ob's back, but this time he's named Max. One of Microsoft Office 98's new features is the Office Assistant. This cheery box with legs provides an easy interface to Microsoft Help. To help you tell the Office Max apart from MacAddict's own mascot, we've put together this handy-dandy checklist. —KT



MacAddict  
Mascot "Max"

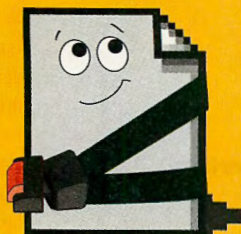


Office 98  
Assistant "Max"

Makes people laugh	✓	
Keeps people from crying		✓
Throws up	✓	
Passes out		✓
Fills vacant space on hard disk		✓
Fills vacant space on magazine cover	✓	
Doesn't use dictionary to look up misspelled search terms		✓
Doesn't use dictionary	✓	
Provides suggestions on how to complete tasks more efficiently		✓
Provides suggestions on how to waste time more frivolously	✓	

## Private File Secured

**J**ason Pettis of Wheatridge, Colorado, will be keeping his documents a bit more secure with Private File from Aladdin Systems. Jason snooped through the November Disc with ResEdit and found an invisible file named, innocuously enough, "Pay No Attention!" The intrepid Pettis successfully located "the winner" in string resource #145, "Hey! Maybe over here." Congrats, Jason! —KT



## 43,508?



**R**eaders Bob Hanson saw the license plate in the November 1997 issue and thought to himself, "It's nice, but it's way too obvious." Preferring something more subtle, Bob sent us this snapshot of his license plate, which he has had since 1988. If you can tell us why this is, indeed, a Mac license plate, you might be the lucky winner of a copy of CodeWarrior Discover Programming Edition. This version of Metrowerks' award-winning programmer's tool offers a fully functioning development environment, plus you get eight online books! Send your theory to us at our Web site or to "I'm a Code Warrior," MacAddict, 150 North Hill Drive, Suite 40, Brisbane, CA 94005 by February 15, 1998. Our winner will be picked randomly from the correct entries. —KT

## The MacAddict Index

Number of computer superstores operated by CompUSA as of November 1997: 139

Approximate number of these stores that will host Apple "store within a store" setups by the end of 1997: 40

### FOCUS ON: THE PRICE OF POWER!

Starting price, in dollars, of Apple's Power Macintosh G3: 1,999

Planned starting price, in dollars, of Motorola's canceled StarMax Pro 6000: 3,895

Starting price, in dollars, of Apple's first PowerPC 604-based Mac: 4,999

Starting price, in dollars, of Apple's first PowerPC-based Mac: 1,819

Starting price, in dollars, of Apple's first 68040-based Mac: 5,700

### FOCUS ON: ONLINE SALES!

Approximate sales, in dollars, made through The Apple Store in its first 12 hours of operation: 500,000

Average sales, in dollars, made by Apple every 12 hours during its 1997 fourth fiscal quarter (ended September 26): 8,868,000

Average sales, in dollars, made through Dell Computer's Web site every 12 hours as of November 1997: 1,500,000

Average sales, in dollars, made by Dell every 12 hours during its third fiscal quarter (ended November 2): 17,516,000

Number of times Michael Dell says he tried to dodge the question before declaring that Apple should be dissolved and the proceeds returned to its shareholders: 2

### FOCUS ON: SEASON OF GIVING!

Number of dollars Apple will donate to charitable causes for every consumer copy of Mac OS 8 sold from November 21, 1997 through January 15, 1998: 10

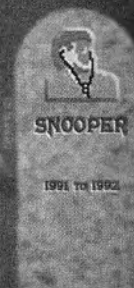
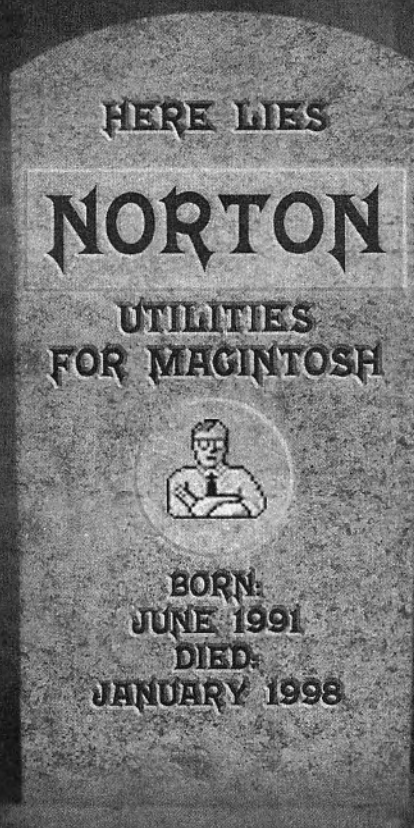
Approximate number of boxes of memorabilia and documents donated by Apple to Stanford University: 2,000

Approximate amount, in dollars, donated to charitable causes by William H. Gates III: 500,000,000

Sources may be found at the MacAddict Web site. —MS



# Hasta La Vista, Norton<sup>TM</sup>



We at MicroMat Computer Systems Inc. would like to extend our sincere condolences to our friends at the Norton Utility Group. For many years, Norton Utilities for Macintosh was the premiere utility for correcting drive problems. Until now.

TechTool Pro 2 is now the best troubleshooting utility available for Macintosh. Why? We've recreated all of the best features of NUM and combined them with TechTool's large arsenal of diagnostic tests. This means that not only can you find and correct drive and file problems (like Norton does), but you can also test all those other critical parts of your system that Norton ignores like RAM, CPU, Floppy drives, CD-ROM drives and much,

much more. In fact, no other utility on the market can check the fitness of your Macintosh to the extent of TechTool Pro.

Just because TechTool Pro is the most advanced diagnostic utility available doesn't mean it's difficult to use. In fact, with version 2, we've added an easy-to-use interface that makes checking your Macintosh a snap. For the advanced user, our Expert mode allows you to control and configure TechTool Pro in almost any way you wish.

For more information about TechTool Pro 2, call us at the number below or visit our web site. You'll see that anything else is just a box full of bones.

**Order TechTool Pro now and receive a free upgrade to version 2 when it ships in February.**

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# cravings

Five fine items meant to make your eyes pop way out of your head.

## Canon XL1

Canon

**T**he XL1 looks a little like a Husquavarna, and that simple fact has kept you from getting beaten up in more than one remote drinking establishment populating the Pacific Northwest. You wouldn't be there at all, really, except that's where you find the people who have seen your prey—sasquatch. Ever since Steve Austin battled Bigfoot in that special two-part *Six Million Dollar Man* episode, it has been your life's goal to get some really good video of that hairy-yet-misunderstood monster. Once you find it, you'll be ready to shoot that video of a lifetime with Canon's XL1 digital video camcorder. This amazing camera can shoot 60 minutes of high-quality digital video (90 minutes if you choose the longer-play/lower-quality setting) on a single digital videotape. The camera's lens mount system gives it the potential to capture video at every focal length, from supertelephoto (17,280mm) for those long-range shambling-



through-the-forest shots, to extreme wide angle (24mm) for those over-the-shoulder-fleeing-from-the-creature shots. The XL1 also includes PCM digital sound processing to capture those sasquatch cries (and your squeals of terror) with pure digital clarity. Plus, the XL1 has built-in image stabilization to keep that image smooth even though you're making like Carl Lewis off the line. Best of all, when you get back to your Mac, you can get at that video fast by using the camera's Firewire connector along with a Firewire board such as one from Adaptec or Radius. The XL1 is a bargain at \$4,699 and can be had by calling Canon at 800-652-2666 or 516-488-6700, or by browsing to <http://www.canondv.com>.

**IT'S NOT A CHAIN SAW, BUT IT RIPS THROUGH VIDEO.**

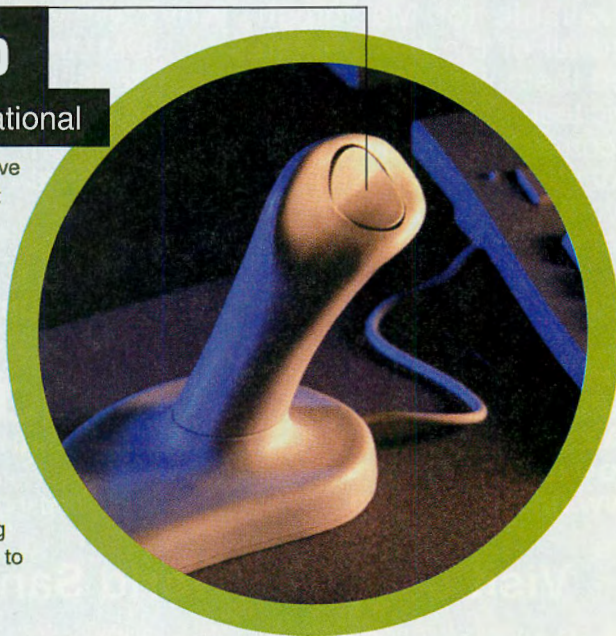
## Anir Ergonomic Mouse Pro

AnimaX International

**I**f Waylon Jennings sang country ballads about video game enthusiasts, you'd have your very own song—born with a joystick in one hand, that sort of thing. But he doesn't, so you've had to live with being the best darn joystick jockey around. That's left you with a cold feeling when it comes to your mouse. Sure, it does the job, but it feels, well, unnatural, cramping the hand like that to get at the buttons, twisting the wrist, and

**FEELS LIKE YOU'RE FLYING YOUR MAC.**

so on. You'll like the Anir Ergonomic Mouse Pro, then. While it looks and feels like a joystick, it works like a mouse. The company claims that it keeps your hand in a more natural position, helping you avoid those nasty repetitive-stress injuries. For only \$79, you can enjoy mousing once again without giving up your joystick. Call 888-291-7449 or 818-713-9933, or go to <http://www.animax.no> to find out more.





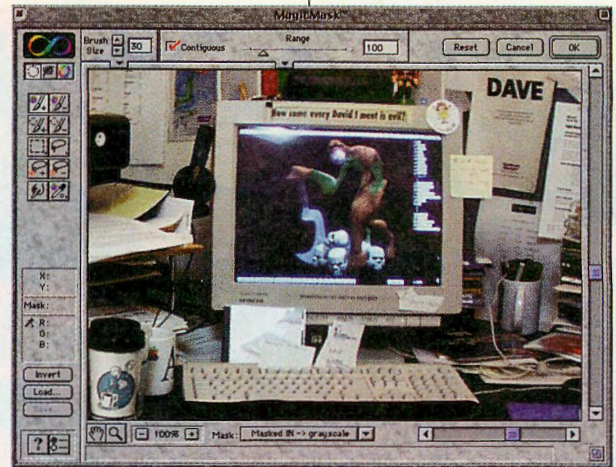
# MagicMask

Chroma Graphics

It takes a lot of time to cut out the image of a human from the average photo, but once it's done, it's so much easier to add to a collage.

Not that you're a stalker. Oh no. That judge cleared you of those nasty little charges, so you got rid of those pictures according to your agreement. Still, it would be nice to find an easier way to do the clipping. Enter Chroma Graphics' MagicMask. This collection of tools for Adobe Photoshop or programs that use the Photoshop plug-in API makes mask-making a breeze: MagicMask's Color Brush selects areas using a paintbrush metaphor; the Magic Lasso finds edges for you when clicking around an object; the Nudge Tool lets you nudge a selection into place; the Density Mask assists with masking gradients such as skin tones in one step. You'll be the envy of all of your...friends. Yeah. They're friends. Contact Chroma at 888-824-7662 or 650-685-6800, or point your browser to <http://www.chromagraphics.com>.

**FASTEST MASK IN THE WEST.**



cravings

# DC-70 Digital Camera Bag

Case Logic

Two million units. Think about that. Some studies say that two million digital cameras will be sold by the year 2000, and some of those case designs are just, well, let's face it, ugly. They try to be hip with their melted-butter or molded-plastic look, but few succeed. Don't despair, fashion maven. There is hope. And it's in the form of the DC-70 Digital Camera Bag by Case Logic. The DC-70 not only houses a digital camera in a handsome leatherlike Koshin fabric case, it also can be worn with an attractive adjustable shoulder strap, or it can be attached to your belt via a built-in belt loop. The case includes an adjustable padded space for your camera and several pouches for batteries, disks, serial cables, and other accouterments that any smart digital camera carrier wouldn't be without. Best of all, Case Logic stands by its camera pouch with a lifetime warranty. For only \$24.99, you can fight fashion faux pas of the digital camera variety. Call Case Logic at 800-925-8111 or 303-530-3800, or surf to <http://www.casellogic.com> to get more information.

**JUST THE BAG FOR YOUR CAMERA.**



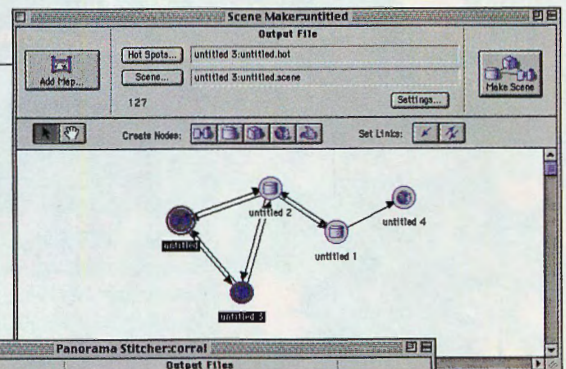
# QuickTime VR Authoring Studio

Apple

It's a small world, but it's yours, all yours, bought and paid for with years of labor at mediocre companies doing mediocre work for mediocre people. But you're not bitter. Finally, you've paid off the note on that little dream trailer, and you want to show off your home to the world. But how? Inviting them over one person at a time would take way too long—what with 5 billion people and all. Then it hits you—with a Mac, a digital camera, and Apple's QuickTime VR Authoring Studio, you can create a QuickTime VR tour of your home and distribute it on CD-ROM, just like America Online does.

**REALITY FOR PROFESSIONALS.**

For only \$395, the QuickTime VR Authoring Studio lets you create professional-level QuickTime VR panoramas and object movies (sort of the inverse of a panorama), and it also lets you link panoramas and objects to make QuickTime VR scenes—virtual walkthroughs featuring several locations. The authoring studio handles any image that QuickTime handles—JPEG, PICT, PhotoCD, TIFF, even QuickTime movies—and has a slew of project management features to help you stay in control of your reality. Call Apple at 800-776-2333 or 408-996-1010, or go to <http://quicktimevr.apple.com> for more information.





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EXPLOSIVE THAN ID'S QUAKE™!"

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EVER SEEN IN AN ACTION GAME"

Computer Gaming World

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FUNNY TITLES I'VE EVER SEEN! IN ADDITION  
TO THE GREAT GAME PLAY, THE TECHNICAL AND  
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EXCEPTIONAL."

AnyGame.com

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- Brutal shooter/strategy combo challenges you to keep one eye on your target and the other looking over your shoulder at all times.



- So Freakin' real, your victims will actually beg for mercy and scream for their lives.



- Real-time 3D characters rage against beautifully hand-painted 2D killing fields.





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COMPLETELY IRRESISTIBLE."  
PC Games

"HOW DO YOU SPELL RELIEF? P-O-S-T-A-L."  
KickAss.com

"THE SHOCK VALUE MIGHT GET YOU STARTED ON POSTAL, BUT IT'S  
THE GAMEPLAY THAT WILL KEEP YOU COMING BACK."  
Gamepen

"THE GAME'S SOUND EFFECTS...ARE NUMEROUS AND ENTERTAINING..."  
Gamesmania

"POSTAL HAS REDEFINED WHAT ACTION GAMING IS ALL  
ABOUT, AND YOU'LL BE HEARING A LOT ABOUT THIS ONE FOR A  
LONG TIME TO COME. REVIEW SCORE: 10 OUT OF 10"

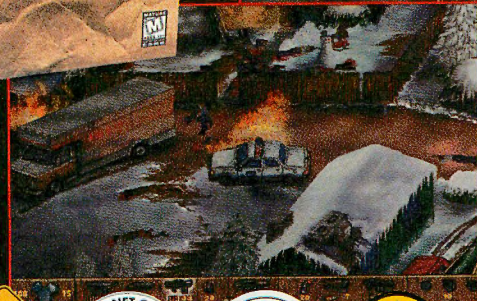
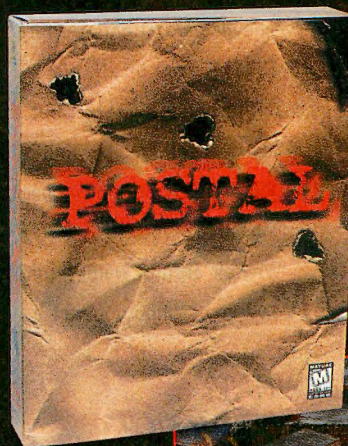
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






# zine

## zen

A  to Graphics

By Nikki Echler and David Reynolds



**Y**ou're not a **Cosmo** woman, nor a **GQ** man. You're neither a **Playboy**, nor a **PLAYGIRL**. You're not into **US**, you're not **InStyle**, and you've never been on **TIME**. You've never paid attention to **Details**. You once were accused of being a **Spy**, but that was just a rumor. You've tried a lot of magazines, but you've yet to find one that's you.

Why sit around waiting for **MS** right when you can just do it yourself. **WHAT? YOU'RE NOT A GRAPHIC ARTIST, EITHER?**

Make it through this graphic guide to zines, and **YOU WILL BE**. Or at least you'll know enough to get your first zine out the

door and on the streets.

Many beginner zinesters and even a few **diehard micro-press pros** swear by the low-cost, low-tech, cut-paste-'n'-photocopy approach to graphic design. And that's fine. But if you ever want to **TAKE YOUR MAG PRO**, you'll need to **PUT A CAP ON THE RUBBER CEMENT** and invest in three key pieces of

software: a photo editor, an illustration program, and a page-layout program. Although

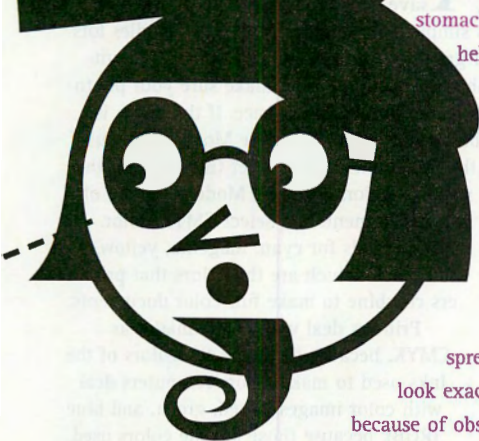
we've chosen Adobe **Photoshop**, Adobe **Illustrator**, and **QuarkXPress** to show you how to jump into publishing (these are the industry-standard programs, after all), you

can use any program that will **get the job done**—our tips apply to just about any program with a minimum of tinkering.

# Gonzo Guide



# planning



**P**lan, plan, plan, or you'll pay, pay, pay with frustration, sweat, and excess stomach acid. Here are the three most valuable tools to help you avoid that Maalox Moment later.

**Size Does Matter**—Before you do anything else, you'll need to figure out what size you should make your mag. Make each page fit on a sheet of 8½-x-11-inch paper, then print each two-page spread on a sheet of 11-x-17-inch paper (front and back) and fold it in half, which makes a signature.

**Sketch It Out**—Make thumbnail sketches for each spread in your magazine. The final product probably won't look exactly like your sketch, but that's OK. Keep in mind that, because of obscure rules of geometry and topology, your zine's total number of pages should divide evenly by four.

**Mock Yourself**—To get an idea of how your thumbnails

fold into an actual mag, divide your page count by four, then fold that many pieces of paper in half. Mark each page with a page number, treating it as if it were a magazine stapled in the fold. This way, when you take your mock-up apart, you'll know exactly which pages go where.

**Color, or Black and White**—You have three choices: black and white, a single spot color (or two), or full color. Here's the decision in a nutshell:

**Black and white**—Pros: Easier, cheaper. Cons: It's not color.

**Spot color**—Pros: More attractive than black and white, and it can be used for dramatic effects. Cons: More complicated, more expensive, and it looks like you couldn't afford full-color printing.

**Full color (or four color)**—Pros: Looks great. Cons: Most complicated and most expensive.

## DROP CAP—

The first letter of a paragraph that is made larger and dropped into the text. The text wraps around the letter as if it were a graphic element.

**GUTTER**—The space between columns of text—not the thing you wake up in at 4 a.m. The gutter also refers to the space between pages on a spread.

**COLUMN**—One vertical stick of text. (Yes, stick is also a publishing term.)

## CUTLINE OR

**CAPTION**—The text accompanying a photo or graphic that tells the reader something about that item.

## PLACEHOLDER—

An object (box, circle, or free-form shape) used to mark where a photo or graphic will go.

## MARGIN—The

empty, "white" space around the outside of the page. The margin should be twice as big in the middle of the spread (between two pages) as it is around the outer border.

**PHOTO**—A photograph (duh).



**TEXT WRAP**—When the width of text columns shrink or expand to wrap around a graphic element.

**PULLQUOTE**—An intriguing snippet of text highlighted with the goal of attracting attention to the piece. The equivalent of skinny bikini-wearing girls in beer commercials.

**SPREAD**—Two pages laid out side by side.

**Teach Yourself Publishing**—Like everything else, publishing has a specialized vocabulary. Save yourself some trouble and use our handy thumbnail sketch—complete with callouts (another publishing term)—to show you what those words mean.

**flow**—Readers (at least those who read Western languages) typically look at a page starting at the top left corner and ending at the bottom right. Your page design should flow to accommodate that natural tendency. This flow can be confined to individual pages, or it can cross an entire spread.

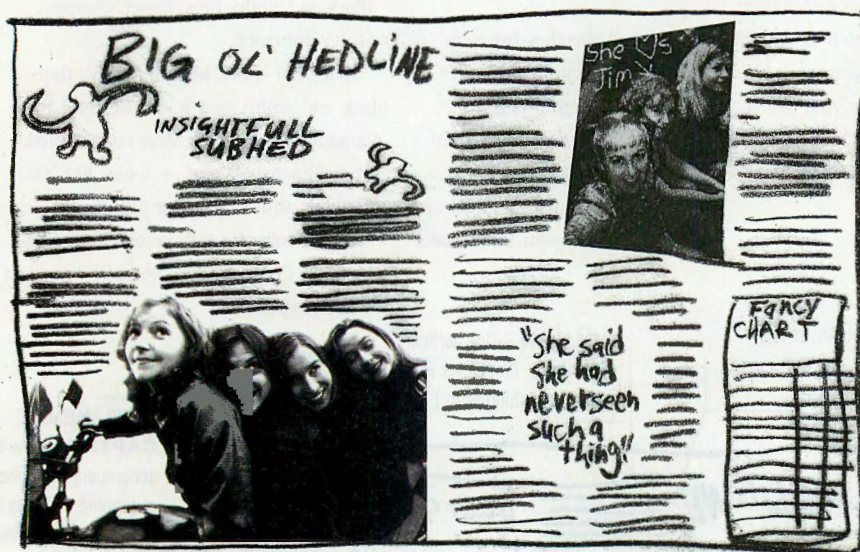
design concept



# photos

A zine without photos is like a room without windows: dull, uninviting, even downright scary. In other words, photos are key. Which means that unless you're going to photocopy, you'll need a scanner and Photoshop, the most widely used photo manipulation product

in the industry. It's not even hard to use. But, if you're looking to cut costs, you can pull off some easy tricks, such as redeye correction and cutting out (or cropping) a photo, in Adobe's consumer-targeted product, PhotoDeluxe, or in MetaCreations' Kai's Photo Soap.



## saving photos

After you've done everything you want to do to your photo, you'll need to save it in the proper format. That's not as simple as it sounds. Photoshop handles lots of graphics formats, but only a few are suitable for printing. First, make sure your photo is in the proper color space. If the photo is black and white, go to the Mode submenu of the Image menu and select Grayscale; if the photo is color, go to the Mode submenu of the Image menu and select CMYK Color. CMYK stands for cyan, magenta, yellow, and black, which are the colors that printers combine to make full-color documents.

Printers deal with color images as CMYK, because those are the colors of the inks used to make color; computers deal with color images as red, green, and blue (RGB), because those are the colors used by computer monitors to make color. You must always convert your image from RGB to CMYK before sending it to be printed in color.

Once you've converted your image to the proper color space, save your photo as a TIFF. This is the standard for printing photos. Unfortunately, it makes for really big file sizes—often several megabytes apiece. In Photoshop's Save As... dialog, select TIFF from the pop-up menu at the bottom. When you save, you'll be asked which bit order you want to use. Choose Macintosh (of course) and make sure that the LZW Compression box is unchecked.

Your photo is ready to be placed.

## before the scan

Getting your photos into your computer is the first—and most important—step. Here are five things you can do to ensure a good scan.

**START WITH THE BEST**—Scan in the highest-quality original photo you can afford.

The more detail you capture in the beginning, the better your photos will look in the end.

If all you have are fuzzy Polaroids, they'll look even worse in print. Brace yourself.

**USE THE RIGHT RESOLUTION**—High-resolution images choke Photoshop and eat up hard disk space, so you'll want to select your resolution with caution. Scan your pictures so that they come out to be 300 dots per inch (dpi) at whatever size you plan on printing them. For example, if you want to scan a 2-x-2-inch photo and want it to print at 4 x 4 inches, scan it at 600 dpi. That way, the scanned image will be 300 dpi at 4 x 4. If this calculation is still too confusing, resolution calculators found at <http://www.infomedia.net/scan/calcs.html> will do the math for you.

**CLEAN YOUR SCANNER**—Dust, smudges, and other gooey things on your scanner glass muck up your scans.

Use a soft, clean cloth and glass cleaner to make our scanner glass spotless.

**SET THE PROPER COLOR DEPTH**—If you're scanning black-and-white photos (or you're printing in black and white), set your machine to scan the image as a grayscale image. You won't waste disk space on color bits that you're going to throw out anyway. If you're going to print your scan in color, set your scanner to scan the image at its maximum color depth (usually 24-bit color or higher).

**CROP**—Crop your original before scanning to include only what you want to print, rather than wait to crop in Photoshop. Again, you'll save disk space and time.

## after the scan

**Correct your colors**—Even the best scanners don't always get the proper colors from the photo to your computer. You can fix this shortcoming (and hide a few photographer's sins) with a simple trick using Photoshop's eyedropper tool. By selecting Levels... from the Adjust submenu of the Image menu, you'll get the Levels dialog box. Select the white eyedropper (in the lower right corner of the box) and click on the whitest part of the image. This sets the image's white point (usually a value of 200 and higher), and it will bring all of the other colors into alignment. Set the image's dark point (usually less than 20) by using the black eyedropper to select the darkest point in the image. While you're in the Levels dialog box, you can tweak the image's midtones as well. To do this, grab and hold the gray triangle under the curving black graph. Drag it back and forth until you're satisfied with how the image looks.



# CLIPPING

**W**hy waste valuable space on the page showing things like dirt and sky when you could cover it with your own rantings? That's the beauty of cutting out a photo's background in Photoshop: use only what you want and leave the junk behind. Here's how you do it:



**Step 1**—Open the photo that you want to doctor in Photoshop. (This is the easy part.)



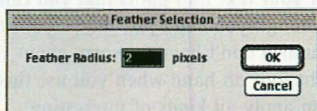
**Step 2**—Put Photoshop in Quick Mask mode by clicking on the Quick Mask button (the one that has a light circle with a dark background). Select the Brush tool and, using a brush with a feathered edge, paint the areas you want to cut out. A transparent color will cover the areas you paint. Don't worry—this doesn't actually color the picture. Instead, it tells Photoshop what to select.



**Step 3**—Take Photoshop out of Quick Mask mode by clicking on the Standard Mode button (just to the left of the Quick Mask button). The areas that you didn't paint will be selected. Yeah, that sounds backward, but we'll fix it.



**Step 4**—Choose Select Inverse from the Select menu. Magically, Photoshop will select the areas you painted in the first place. The reason why we don't paint the part we want to keep and skip this step is because it's easier to paint parts you don't want than the ones you do want.



**Step 5**—Choose Feather... from the Select menu. In the resulting dialog box, enter a small number (perhaps 2 or 3). This is the feather value for your selection, and it tells Photoshop how many pixels to blend with the background color around a selection. This smooths the edges around your cutout, keeping it from looking harsh and sharp.

**Step 6**—Hit the delete key. All those unwanted pixels will magically disappear! You also can use this technique to cut out individual objects—such as the monkey from our Barrel Of Monkeys—to spice up your magazine.



Learning the basics—pagination, halftones, inks, paper, binding—will save everyone a lot of trouble and prevent disappointments or costly surprises.

—Doug Kubert, Editor of Zeen



zines

## creative captions



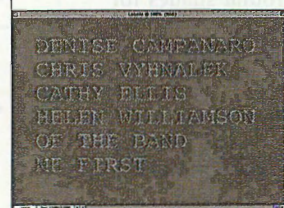
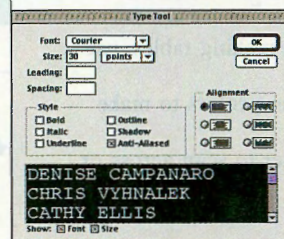
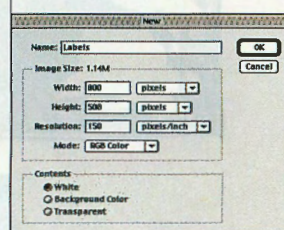
You have a great photo, but you're planning on putting a plain ol' boring box of text underneath it as a caption? What are you thinking? A photo like that deserves a much more creative caption.

**Step 1**—In Photoshop, set your foreground color to a medium gray, and then create a new document. Make it large enough to hold all the labels you want to make, and don't forget to set the resolution at 150 dpi (or higher). Choose Fill from the Edit menu, and select Foreground Color.

**Step 2**—Using Photoshop's type selection tool (the T with the dotted line around it, not the solid T), click in the upper left area of your document and type in the text for your labels in the dialog box. Select your font and size in this box, and be sure to check the Anti-Aliased check box in the Style box.

**Step 3**—The text you typed will be selected, floating above the gray background. Select a gray darker than the background, then fill the letters with the paint bucket. The letters will turn dark. Hit the right arrow key four times (the dotted lines will nudge to the right each time), select a foreground color lighter than the background color, and use the paint bucket to fill the letters again.

**Step 4**—Hit the left arrow key two times. Your selected letters will nudge to the left two pixels. Use the eyedropper tool and click in the background color to select it as the foreground color. Use the paint bucket tool and fill the letters with the background color. Convert your document to grayscale by selecting Grayscale from the Mode submenu under the Image menu. Save your image as a TIFF.

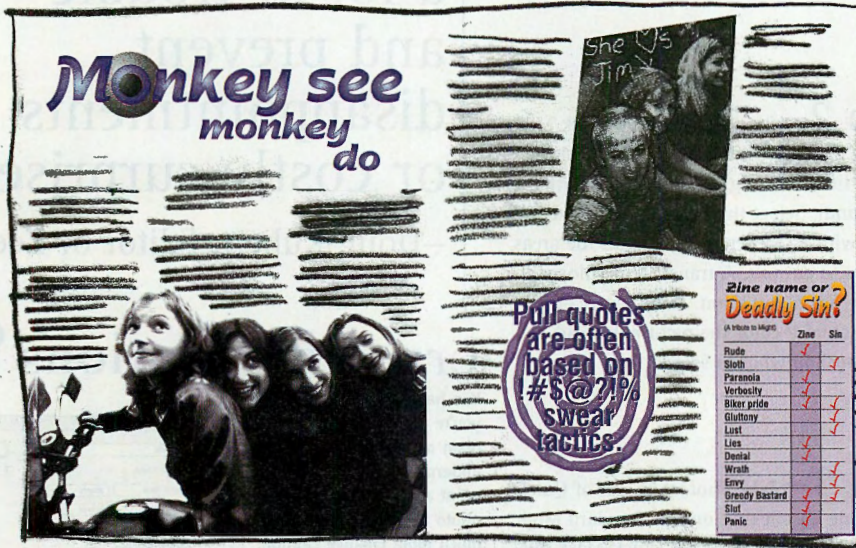




# illustrations

**S**o you have photos, and you've added some personal effects to them, but you want to do more. You want to personalize your pages

even further with logos, graphs, and backgrounds. But how? Create them, my friend. We'll show you how to create a great headline (complete with bloodshot eyeball) and how to make a pullquote background that can't be beat.



**entry points—** Drop caps, pullquotes, graphics, and photos—they all are ways to bring readers in to your magazine. The more entry points you include, the easier it is for a reader to get into your article—to a degree. Same caveat here: there is such a thing as too much of a good thing.

design concept

## shady tables—

When making tables, use different colors to make it easier to scan across or down the table. Alternate background shades for each row or for each column.

**clip art—**Make your own so it isn't garbage. Save graphic elements that you will use again—such as backgrounds and logos—in your own clip-art file.

# lines to remember

**Monkey see  
monkey  
do**

**Monkey see  
monkey  
do**

**Monkey see  
monkey  
do**

## Step 1

Open a new document in Illustrator 7. Using the type tool, click on your work area, and type "Monkey, see, monkey do." Select the text, make it the right font and style, and position it exactly how you want it. You may want to use the text tool for each word (or each letter) to give you better control of how the text is placed.

## Step 2

Using the arrow tool, select your text, then choose Create Outlines from the Type menu. Illustrator will convert your text into paths that you can edit. Why do this? Although you can't just retype your text if you find a typo, you also don't have to worry about always having the right font on hand when you use this headline. Also, you can apply all kinds of interesting effects to your type after it's been converted to outlines.

## Step 3

With all the outlined letters selected, choose Radial in the Gradient section of the floating color palette. Click on the Stroke tab and give the text a one-point stroke. Your headline is ready for its artwork.



If you can afford to get a four-color cover printed make sure you see a proof! It's amazing what some printers will consider "acceptable" color separation. —Laurie Henzel, Art Director of BUST Magazine



## pullquote

It's not enough to do text over white paper for your pullquotes—booorriing! Instead, try something behind your quote to grab attention.



**step 1**—Set the paintbrush tool to a wide setting (20 point or so), and use it to draw a spiral. Using the color palette, fill the spiral with a dark color (something that will complement your overall color scheme). We picked purple.



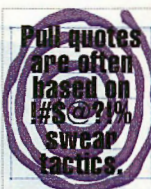
**step 2**—Choose the Roughen filter from the Distort submenu under the Filters menu. Set the Roughen Size to 1 percent, and the Roughen Detail to 4 points per inch. Make sure the Smooth radio button is selected and that the preview is turned on.



**step 3**—With the spiral selected, copy it and paste it to create a duplicate. Fill the duplicate that you just created with black and use the Send to Back command (under the Arrange submenu of the Object menu) to put the darker spiral behind the lighter one. Nudge the shadow spiral into position.



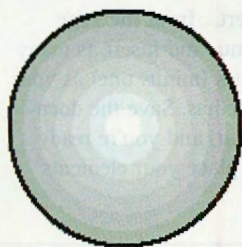
**step 4**—Select the two spirals, and group them with the Group command (found under the Object menu). Using the Transform palette, adjust the size of your spiral until it's the right size. By entering different values for the spiral's width and height, you can squeeze the spiral into any space you need.



**step 5**—Click on your spiral with the type tool, and type in your pullquote text. Select the text, center it, and make it big enough so that it covers the spiral. Be sure to choose a typeface that is thick enough to be readable over the spiral.

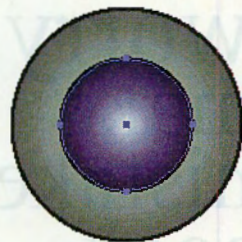


**step 6**—Choose Create Outlines from the Type menu. You won't have to worry about having the font around when you use the graphic. Group the text using the Group command. Copy the text and paste it to the back. Fill the new text with white. Use the arrow keys to nudge the new text into position behind the old. Save your pullquote as an EPS file, and you're done.



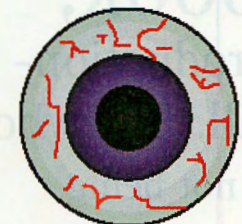
## Step 4

Select all the text and move it out of the way. Select the circle tool, and, holding down the Shift key, draw a circle that's just a little bit bigger than the *o* in the first *Monkey*. The Shift key just makes sure that the circle is perfectly round. Give the circle a radial gradient. Click on the left tab in the Gradient section, and select white for that color, then click on the right tab in the Gradient section and select a nice shade of gray. Your circle should look like a sphere. You can make it look even more like a sphere by offsetting the gradient. Use the directional tool, and pick a point on the circle where the light point of the gradient will be. It will look like the light source is off to the side rather than coming from straight ahead.



## Step 5

Hold down the Shift and Option keys, and, starting at the center of the first circle, draw a second circle that is about two-thirds the size of the first. Click on the right tab of the Gradient section, and set the color to something interesting—such as a dark purple. You've just created your eyeball's iris.



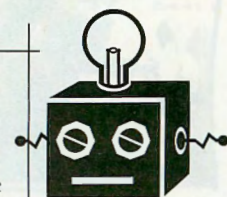
## Step 6

Again, hold down the Shift and Option keys, and draw a third circle starting at the center of the second. Make it about half the size of the second circle. You now have the pupil and a complete eyeball—all except the veins. Using the pencil tool and a crimson color, draw small squiggly lines on your eyeball.

## Step 7

Use the arrow tool to drag-select the eyeball. Select Group from the Object menu. Move the eyeball over the *o* in the first *Monkey*. If it's too big, resize it with the scale tool. Select the eyeball, and then double-click the scale tool. A dialog box will pop up, asking you how much you want to scale the item. Select a percentage and click OK. Alternately, you can click on the scale tool, set a scale point in the middle of the eyeball, and then click and drag to scale the eyeball to the appropriate size. Select the arrow tool, then choose Send to Back from the Arrange submenu of the Object menu. Finally, select the *o* and hit delete. There you go: one stylized headline. Save your work, and use the Save As... command to save the headline as an EPS. (You'll need it in this file format when you place it in Quark XPress.)

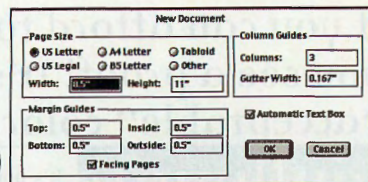
**Monkey see  
monkey  
do**



## great type—

Although Photoshop does passingly well with type, use a vector-based illustration program (such as Illustrator or FreeHand) to do as much type as possible. It's generally crisper than the Photoshop alternative.





Open QuarkXPress and create a new document. In the dialog box that pops up, select the page size that matches the page size of your zine. If you're using 8 1/2-x-11-inch paper, select US Letter. If you're using 5 1/2-x-8 1/2-inch paper, enter those dimensions in the Page Size, Width, and Height boxes.

Choose the number of columns (in our case, three), make sure the Facing Pages checkbox is checked and that the Automatic Text Box checkbox is unchecked, look to see that the Margin Guides boxes all have 0.5" in them, and then click OK. A window with a single page will pop up. That page will have guides for three columns. Choose Insert... from the Page menu, and insert as many pages (minus one) as your zine has. Save the document, and you're ready to place your elements.

# creating your file



## art placement

One of the first things you'll want to do is place your text. Link these boxes with the link tool (the one that looks like three chain links) by selecting the tool, clicking in the first box, then clicking in the second box. Repeat these steps until you have linked all of the text boxes. This tells QuarkXPress how the text should flow.

Now, select the content tool (the little I-beam/hand combination tool), click in the first box, and select Get Text from the File menu. In the Open dialog box that pops up, find the article file that you'd like to place. QuarkXPress will open that file and import that text into your columns. Only a masochist would type the article directly into the columns.

Draw a text box for each headline you want on your page, then type in the headline. Style the text how you want, and drag the box into position on the page.

After you have your text in place, you can start putting in your artwork and photographs, which you'll do in pretty much the same way. To add a graphic, select a picture box tool. Select the polygon picture box tool, and draw a text box in the rough shape of your art work by clicking around the edges of the image. Then, select the content tool and choose Get Picture from the File menu. If the picture is too big (or too small) change its size by selecting Modify... from the Item menu. Don't change the image size in this manner with bitmapped pictures, as changing their size will make them look odd. Make the photos the correct size in Photoshop. Feel free to size EPS graphics—they don't suffer from the same problem.

Don't worry if you make every mistake in the book, design- or production-wise. You will. But who cares? You're not being

graded on your zine.

Just have fun.

—Chris Charla,

## Editor of Snak Fud

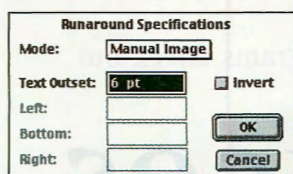




# How to make a drop cap

## How to do a text wrap

One of the best (and most basic) things you can do to make your zine look like a newsstand pro is to wrap text around your art so that it follows the shape of the graphic. Here's how you do that in QuarkXPress:

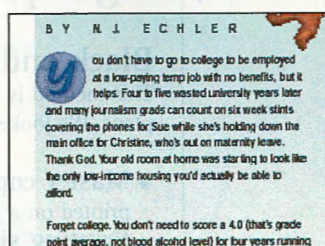
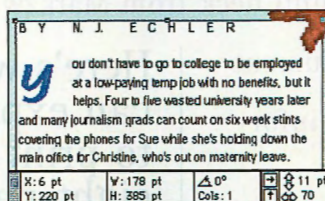
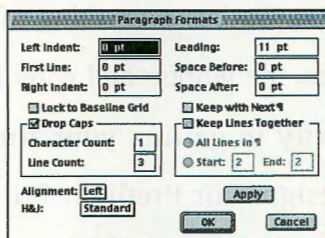
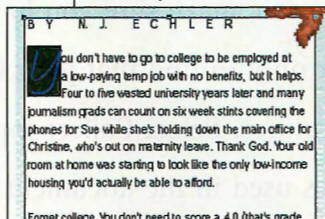


**Step 1**—Draw a square picture container about where you'd like to put the graphic element, even if the picture isn't square. Trust us.

**Step 2**—Select the content tool, and choose Get Picture from the File menu. Find the image file that you want to place, and click OK. Choose the arrow tool, and resize the picture box so that all of the image shows without much wasted space.

**Step 3**—Choose Runaround... from the Item menu. Choose Manual Image from the pop-up menu, and give the text outset a value of six or higher. The Manual Image item lets you edit the runaround path, and the text outset value tells QuarkXPress how far to keep the text from the image. Your text now is wrapped. If you don't like how the text is wrapped, just grab the little black boxes sitting on the dotted line and drag them around. The dotted line tells the text where to wrap, so if you change its shape, you change the shape of the text wrap. If you want really fine control of the wrap's shape, you can add points to the dotted line by Command-clicking on it.

The venerable drop cap tells your reader, "Hey! This is where you start reading." So how do you make one? It's simple.



**Step 1**—Select the character that you want to make into a drop cap, then select Formats... from the Style menu. In the dialog box that pops up, check the Drop Caps checkbox. There are two things you can change here: the Character Count and the Line Count. The Character Count tells QuarkXPress how many big letters you want; the Line Count tells QuarkXPress how big you want the letter(s) to be by specifying the number of lines to wrap around it. We'll leave these set as is.

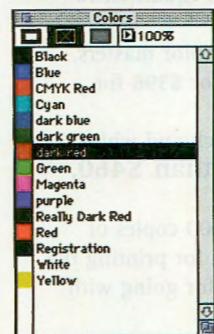
**Step 2**—Now you need to tweak your drop cap. Using the Measurements floating palette, change the following settings: Make the character bold (the B button), make it a capital letter (the K button), change its size to 80 percent, and set tracking to 70 (the number to the left of the paired horizontal arrows).

Now it's starting to look right.

**Step 3**—Finally, you need to create a background for your drop cap. Select the picture box tool and, holding the Shift key down, draw a circle a little bigger than your drop cap. Using the Colors palette, set the circle's fill color to a medium color, and set its line (or frame, as it's called in QuarkXPress) to

black. Choose Runaround... from the Items menu, and select None from the pop-up menu. Click OK. Move the circle over your drop cap, select the drop cap's text box, and select Bring to Front from the Item menu. *Viola*, a double-tall cap sans the snotty Starbucks' coffee jerk.

# Colorizing a black-and-white image



**Step 2**—Using the Measurements palette, rotate the picture and box by about four degrees clockwise by entering the number "4" in the area next to the little angle (a positive value rotates the item counterclockwise). Now use the content tool to select the caption's picture box, and click on the box with the X in it in the Colors floating palette. Select a color to tint the image. It's important that the picture was saved as a grayscale image (not CMYK), or you won't be able to colorize it in QuarkXPress without resorting to the custom contrast dialog box (which can produce some interesting effects but takes a lot of tweaking).

**Step 3**—Repeat steps one and two until you have all your labels placed. Rotate each label to a different jaunty angle for that pasted-on look. You can save a little space on your hard drive by cutting each label out in Photoshop and saving it as a separate file, but all that gets you is more files to manage.





# getting it printed

You're almost ready to take your zine

to be printed. Before you do, make sure you have everything in one place. Save yourself the hassle of getting to the printer only to find that your document is messed up—take advantage of QuarkXPress' file-checking features. Select Collect for Output... from the File menu, and QuarkXPress checks for all the images used in the document and collects them in a folder of your choosing. Gather everything that's used in your document—fonts, images, the works—and copy it onto a Zip disk.



For even more security in getting your zine to the printer intact, check out Preflight Designer or Preflight Pro from Extensis (503-274-2020) or FlightCheck from Markzware (714-756-5100). These programs check out your QuarkXPress document and give you detailed information about all of its features.

## printer checklist

**Check off the following items before you go to the printer, and you—and your printer—will be happier people.**

- Copy all fonts used in the zine onto your disk—including both screen fonts and printer fonts.
- Copy all artwork used in the zine onto your disk.
- Open the document from the disk to make sure that you have all the fonts and artwork you need.
- Make sure all artwork is in EPS or TIFF format and that it's either in CMYK or grayscale color modes (or, if you happen to be using spot color, that the artwork uses only that spot color).
- Make sure the margins and gutters are all set up properly.
- Proofread your zine one last time to catch a few more mistakes.

Here's what you can expect to pay to print a sample eight-page zine:

## prices

### Black and white (50 copies)

This method is best suited to a small run (less than 500 copies) done at a photocopy place. We looked at the cost to print 50 copies at Kinko's.

- **Master copies: \$4.** Two dollars per master copy—\$1 for each side to be printed on a laser printer, plus 40 cents a minute for computer rental.
- **Printing signatures: \$26.** Thirteen cents per side to print each 11-x-17-inch copy, which makes 26 cents to print both sides of a signature—\$26 for 50 complete eight-page zines. If you have more than a hundred signatures printed, you should get a price break.
- **Folding: \$5.** The price is around 1½ cents per sheet for folding 500 signatures. See if they'll throw in the stapling, too.
- **Total price from disk to print for 50 copies: Less than \$40.** Remember to shop around for the best prices.

### Four color (50 copies)

You'd better *really* want color (or a lot of copies) if you choose four-color printing at your local print shop. Otherwise, it's just too expensive.

- **Color masters: \$51.92.** This includes a \$10 fee to print a color master of each side of a signature—which would equal \$40 in fees for two signatures. In addition to the \$40 in printer fees, it costs \$2.98 to print each side of the master, in addition to 40 cents per hour in computer fees. This equals extra printing fees of \$11.92 to print masters of two signatures.
- **Printing from masters: \$396.** When printing from the color masters, it costs \$1.98 per side, which equals \$7.92 for two signatures, or \$396 for 50 copies.
- **Folding: \$5.** It's the same job for color zines as it is for black and white.
- **Total price from disk to print for 50 copies: Less than \$460.**

Think quantity if you're going color. When you get to 500 to 1,000 copies of your magazine, you should get a price break, as the process used for printing the publication changes. Also, you probably won't get a price break for going with one color unless you print more than 1,000 copies.





# Real zine Advice from real zine editors



I think the best advice I'd give to any aspiring zine maker would be to become familiar with the printing process. Learning the basics—pagination, halftones, inks, paper, binding—will save everyone a lot of trouble and prevent

My advice to anyone starting a zine is to start off small, maybe 200 copies, and just Xerox and staple them. That way, if you want some color on the cover, you could either use color laser copies, silkscreen, or hand coloring. The worst part about zines is usually



disappointments or costly surprises. Also, it's always a good idea to know what you want the final product to look like, including size, trim, paper stocks, etc., and how to prepare your pages to accommodate it.

—Doug Kubert, Editor of *Zen*

(<http://www.loop.com/~zeenzine>)



the lack of money! Printing is expensive, so you need to shop around, and if you can get anybody to give ads—that's great. I use QuarkXPress, Photoshop, and Illustrator. If you can afford to get a four-color cover printed, make sure you see a proof! It's amazing what some printers will consider "acceptable" color separation. Just because

you're a zine doesn't mean you are not entitled to good quality!

—Laurie Henzel, Art Director of *BUST Magazine*

(<http://www.bust.com>)



Do everything yourself. Learn how to do two-color printing yourself. Figure out layout and design, yourself. Half the fun of doing a zine is the production, the act of publishing. The learning that inevitably accompanies that process creates an amazing feeling of accomplishment. When you've done five issues and you look back and see how far you've come, it's an incredible feeling. Also, don't worry if you make every mistake in the book, design- or productionwise.

You will. But who cares? You're not being graded on your zine. Just have fun.

—Chris Charla, Editor of *Snak Fud*

The most important thing about having a zine is having something to say. If there is no content, it doesn't matter how

good the layout, pictures, graphics, or record reviews are. Get bids on printing (even if you're just planning on copying and binding

it yourself), and figure out how much you can spend. No one makes money at this, so you have to have the money to burn. Enlist friends as fun and free help. Have fun, say what you feel, and learn valuable lessons in computer graphics at the same time. When I started the magazine, I hadn't used any computer layout program at all. Now, I have a job doing layout and graphics at a newspaper. It may not be a life's work, but it helps to pay the bills. And if you get really lucky, your hobby becomes your job.

—Matt Worley, Editor of *Lies*

(<http://cent.com/abetting>)



One of the most fun things about doing a zine is putting it all together, making a look. The best thing to do is find your inspiration. Look at your favorite magazines and examine how they are laid out. Utilize the aspects you dig in your own layouts. Text boxes, picture placement, blown quotes, design details—all are things that add to the "look" of your zine. Find out all the output and printer details that you'll need to get the best look out of your layouts. The proof is in the printing, so make sure you pick a good printer.

—Sunny Andersen, Editor of *Girlyhead*







# HOW'D THEY DO THAT?

secrets

1 Adobe ILLUSTRATOR

By Robert Capps



MetaCreations PAINTER

2

ONE IMAGE, TWO ARTISTS, FOUR PROGRAMS. The top left quadrant was done in Adobe Illustrator 6 and 7, the bottom left quadrant in MetaCreations Painter 5, the top right corner in Deneba Systems' Canvas 5, and the bottom right quadrant in Adobe Photoshop 4.



**W**hen it comes to print graphics, Macs kick any other system square in the windpipe. Want to terrorize a graphic artist? Restrict him or her to working with just a Wintel machine. Gasp... wheeze. To celebrate this dominance, we take a gander at Mac art in action. Here's the idea: Two longtime Mac artists—Andrew Faulkner of Andrew Faulkner Design and Illustration, and our own associate art director, Adam Vanderhoof—design one illustration using four completely different programs. Adam designs one-fourth in Adobe Illustrator (top left) and one-fourth in Adobe Photoshop (bottom right). Andrew designs one section in MetaCreations Painter (bottom left) and one in Deneba Systems' Canvas (top right). We show you, step by step, some tricks of their trade.



3

**Deneba Systems' CANVAS**

# Adobe PHOTOSHOP

4



## Tip 1



To create the dimension-irreverent balloons you see in the Illustrator section, Adam starts by drawing a solid object—in this case, a circle with Illustrator's circle tool. He then **sections the circle** with the knife tool.

The next step is to **create a custom gradient** in the Gradient palette. Making sure his new gradient is radial and has four points on its scale, Adam assigns a selected color to the second point (he makes the first point pure white—all values at zero). For the third point, he assigns the same color as the second point but adds black (the K channel) at around 65 percent (creating the object's turning edge). He also assigns the color to the last point—which should be at the end of the scale—adding 15 to 20 percent black (simulating reflective light).

Adam selects every other section of his circle and fills them with the new gradient. He repeats the gradient process with a new color—which is similar in intensity to the first color—by copying the first gradient to keep the location and value (black channel) of each point exactly the same. He assigns this new gradient to the remaining sections of the circle. The same thing is done to the letter Z after it is added to the circle. Once done, Adam selects the entire object and **drags the gradient tool** from the upper left area of the circle diagonally down to the lower edge. The circle becomes a striped 3D sphere.



## Tip 2

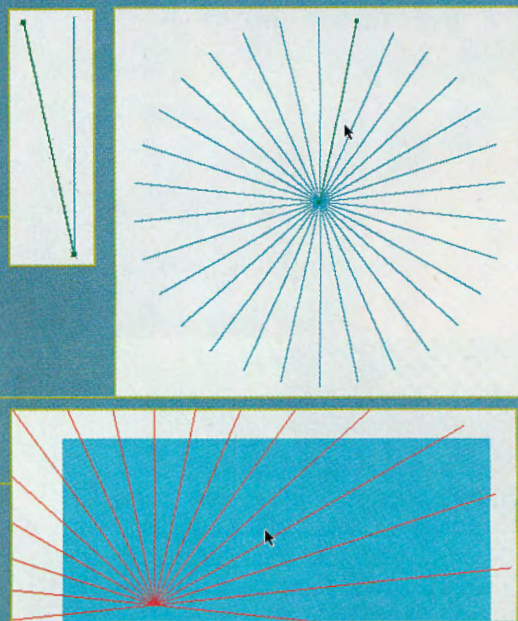


To create sunbeams emanating from behind the traffic cop, Adam first draws a perfectly vertical line (by holding down the Shift key) with the pen tool. After selecting the line, he chooses the rotate tool from the toolbox and, while holding down the Option key, clicks on the end of the line he wants to serve as an **anchor** (in this case, the bottom point). This causes a Rotate dialog box to appear. Deciding he wants to create 30 even sections, Adam divides 360 degrees by 30, yielding the number 12. In the Rotate dialog, he types 12 degrees and clicks Copy. *Voilà...* a new line appears 12 degrees from the first.

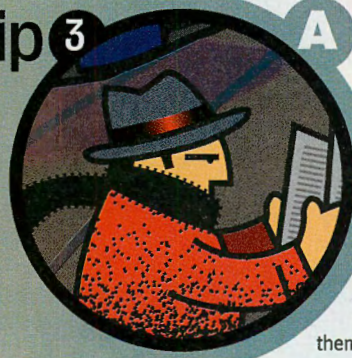
Hitting Command-D, Adam automatically repeats this process until he has made an entire **circle of evenly spaced lines**. He groups the segments.

To fill the spaces between lines, Adam first draws a solid object larger than the space he wants to fill—in this case, a rectangle. He then **places lines on top** of the rectangle and selects both objects. By choosing Divide from the Pathfinders submenu, Adam cuts the rectangle into pieces shaped like the star of lines. He then deletes the bottom pieces.

To finish the sun, Adam adds a radial gradient to the remaining sections of the divided rectangle. Adam groups every other section and uses the gradient tool to slightly skew these gradients.



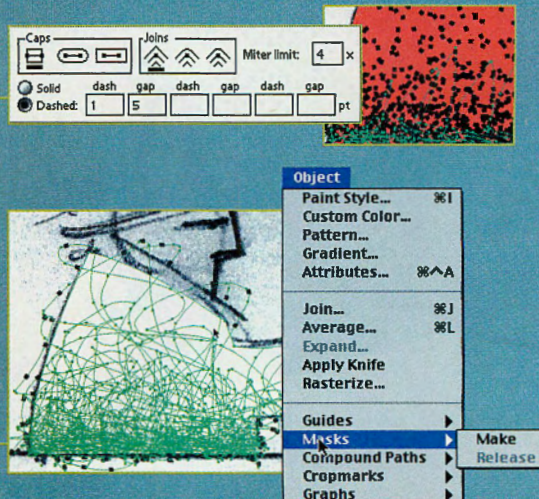
## Tip 3



Adam next uses Illustrator's Dashed Line feature. He starts by scribbling a one-point line with the pencil tool above the already drawn shape of the shirt. To reveal the **dashed-line options**, Adam selects the black triangle in the upper right-hand corner of the Paint Style palette in Illustrator 6 or the Stroke palette in Illustrator 7. By selecting Dashed Line and tweaking the dash size, Adam can change the pattern's density. Adam makes his texture more diverse by drawing lines with varying attributes.

He lays the lines on top of the man's shirt, allowing them to bleed off the edges. In order to mask the excess,

Adam selects the shirt, copies it, and pastes it in front of the lines (Command-F). He groups only the original shirt and the dashed lines. Once done, Adam selects both the copy of the shirt and the grouped original shirt, and selects **Make Mask** from the Mask option found in the Object menu. The excess lines disappear.





## Tip 1

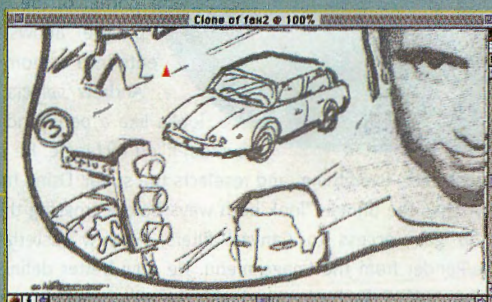
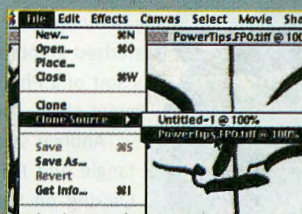


To get all the different elements placed just right in Painter, Andrew uses a feature of the program that allows an artist to trace a reference image as though using tracing paper.

After scanning in a sketch of the street scene, Andrew opens the image from within Painter. Under the File menu, he makes sure the opened image is selected as the **Clone Source**. Then, again in the File menu, he selects Clone. A second copy of the scanned image opens. He types Command-A to select the entire window, then deletes the image by hitting the Delete key. This leaves the second window blank, but, in fact, a tracing pattern has been

formed. To see it, Andrew selects Tracing Paper under the Canvas menu. A **ghostly outline** of the original image appears. To make the outline appear or disappear whenever he needs to see it or wants it gone, Andrew presses Command-T.

Andrew places the elements he needs and, when he is finished, toggles off the tracing guide.



## Tip 2

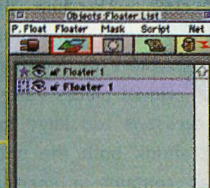
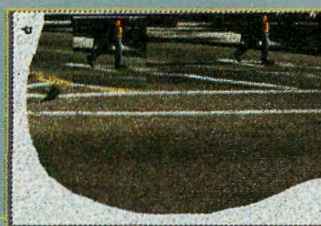
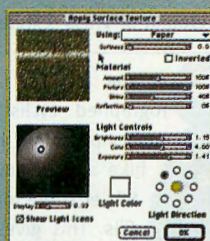


Andrew's particular style of art incorporates photos for a collage effect. In order to manipulate photographs to blend into a paint-on-canvas environment, Andrew pastes them as floaters on a background image.

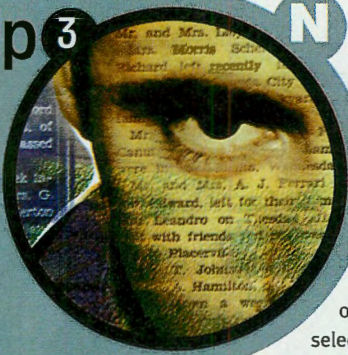
Andrew starts by importing a low-quality photo of a street. This being a little too plain a background for Andrew, he applies texture with the Apply Surface Texture option (Command-;) under the Effects pull-down menu. He leaves the **Using selection on Paper** and hits OK. The entire photo now looks as if it is a **bumpy, physical canvas**.

With the background ready for its floaters, Andrew opens photos of the central face, a car, a guy walking, and a streetlight as separate files. He selects the objects with the lasso tool, copies these selections, and pastes them to the background image of the street. This process lands each image on its own **floater**.

Because the images are floaters, their **opacity can be lowered** (letting some of the background show through), they can be sized and placed easily, and filters can be applied. Andrew lowers the opacity of each image and, in the case of the main face picture, applies the Luminosity filter located in the Composite Method pull-down menu on the Controls: Adjuster palette. The other images are similarly enhanced but with the Hard Light filter.



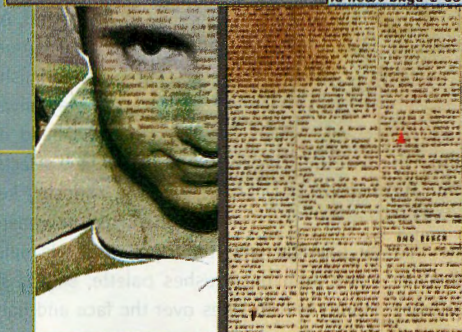
## Tip 3



Not content with using only the textures native to Painter, Andrew decides to take things a step further and make his own texture. To accomplish this, he scans in an old newspaper and opens it as a separate Painter file. Double-clicking on the paintbrush opens the Brushes palette. From this palette, Andrew selects Painter's **Cloners** brush. By holding down the Control key and clicking in the newspaper, Andrew selects the text as the clone source. Anytime this is done in Painter, a number one appears at the selected area. Happy with his selection, Andrew returns to the main window and paints his new **newsprint texture** across the face and background. To

add blue text behind the car, he inverts the image of the newspaper by selecting Negative from Tonal Control, under the Effects menu, and continues to paint with the Cloners brush.

To give things a little more of a Painter feel, Andrew adds various colors with different brush types and sizes. Using a range of opacities, he creates the appearance of varying brushstroke thickness. And to get an even more pronounced brushstroke feel, he applies the Image Luminance filter to the illustration, bringing out the feel of paint buildup.





## Tip 1

Look both ways

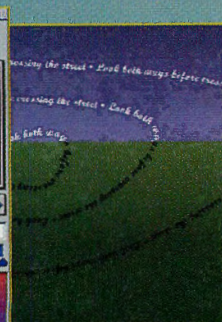
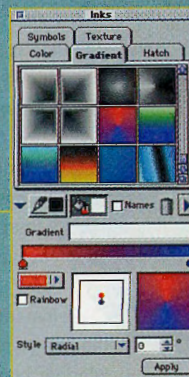
C

anvas' unique niche is its ability to cross photos (rasterized graphics) with drawings (vector graphics). It's sort of a Photoshop/Illustrator hybrid with a text layout ability thrown in.

Andrew starts this section by drawing a rectangle and filling it with a customized gradient. Clicking on the purple triangle in the lower left corner of the **Gradient palette** (found on the Inks palette) allows Andrew to tweak standard gradients into custom ones.

Andrew selects Canvas' **Bézier curve tool**—which looks like a pen—and draws a spiral in the center of the custom-filled rectangle. He selects clear for the color of the spiral, deselects everything, and reselects the spiral. Using the **type-on-path** tool, Andrew repeatedly types the phrase "look both ways before crossing the street" on the spiral in white text.

To gain access to Canvas' filters, Andrew rasterizes the entire image by selecting Area/Render from the Image menu. He now better defines the horizon by selecting just the bottom half of the background with the rectangle selection tool and choosing Invert from the Image/Adjust pull-down menu. With the bottom half of the image still selected, Andrew also applies the Add Noise filter (the filters also are located under Adjust). This technique gives the bottom half of the image a rough ground or grass texture.



## Tip 2

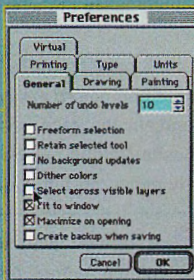
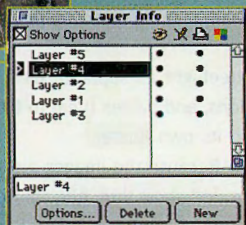
F

or the bicyclist, Andrew wants to create a photographed cyclist riding an illustrated bike. To accomplish this, he imports a picture of a guy on a bike and begins **drawing over the bike** with the Bézier curve tool, applying various gradients and fills. This gives the image a loose, hand-drawn feel, breaking up the rigidity of the photograph.

Because the bike contains many different small parts (think spokes), Andrew keeps each piece on a **separate layer** to make selecting individual pieces easier. Because the photograph of the cyclist is too large for the overall illustration, Andrew must shrink both the photo and its corresponding vector art—all layered—together.

Canvas contains a special feature for doing this in the Preferences dialog box (under the File menu); he checks **"Select across visible layers"** in the General tab. This feature enables Andrew to select and shrink the whole conglomeration of images at once.

Andrew now gets rid of everything in the photograph but the man. To do this, he first draws an outline around the man with the Bézier curve tool. Under the Object menu, he pulls down the Mask submenu and selects Make. All that is left is a photographed man riding an entirely illustrated bike.



## Tip 3

T

o add some style to the Canvas portion of the central face, Andrew both colorizes and texturizes the photo. To colorize it, Andrew imports the photo, renders it, and selects **Colorize** from the Hue/Saturation dialog box. Because the default color is bright red, Andrew also changes the Hue setting to a tan-orange and bumps up Saturation.

Before finishing the face, Andrew completes the rest of the Canvas area by **placing the dog walker**—a masked head on a separate masked body. Once done, Andrew selects the entire image and renders it at 266 dpi by choosing Render from Area under Image.

With the image now rasterized, Andrew adds texture to the face and hair by painting with the clone tool. He selects a large soft brush, chooses the Difference mode from the Brushes palette, **selects the rough background and words** as the cloning source, and brushes over the face and hair with the clone tool.





Adobe

# PHOTOSHOP

## Tip 1

K

Nowing no street scene could ever be complete without them, Adam put some thought into a very stylized way of creating a dog and fire hydrant in Photoshop. We'll get to the dog in a minute. For the hydrant, Adam swipes a closely guarded secret of sometimes *MacAddict* contributing photographer Aaron Lauer. The trick softens the colors of a photograph while maintaining the sharpness of the overall image.

Adam starts with a photograph of a yellow fire hydrant. After cutting away everything but the hydrant, Adam converts the image to CMYK by selecting it under Mode (under Image). Opening the Channels tab on the Layers palette gives Adam a clear view of each color comprising the image. Adam selects Magenta and chooses Gaussian Blur. He blurs this channel by around seven pixels.

Adam next selects Cyan. He applies a Gaussian blur as much as in Magenta and, as is his taste for this photograph, blurs the yellow slightly less. He does not touch the black. The result is a soft color image with well-defined features.

## Tip 2

F

For the dog, Adam colorizes a simple line drawing he made on paper. Once the line art is in Photoshop, Adam uses the magic wand selection tool to select a piece of the dog's body. By choosing Similar from the Select menu, all the black becomes selected. To get rid of the fuzzy fringe, he contracts this selection under Select/Modify by one or two pixels.

Happy with the selection, Adam copies and pastes it to a new layer. He deletes the first layer, leaving only the line art on an empty background.

Adam creates a new layer for the dog's outline.

Returning to the outline layer, Adam selects the inside portions of the dog he wants to add color to with the magic wand and expands the selection (under the Modify submenu of the Select menu) by five pixels. Keeping the areas selected, Adam returns to the color layer. Choosing a color from the Color or Swatches palette, Adam hits Option-Delete to fill in the selections.

Adam adds highlights to the edges of the dog by painting white lines with the paintbrush, using an airbrush tip (bottom of the Brushes palette). In the Options palette, Adam lowers the paintbrush's opacity to between 60 and 80 percent before painting to allow the color beneath to show through. He increases the opacity to intensify the highlight.

## Tip 3

A

A big fan of Salvador Dali, Adam makes the Photoshop chunk of the central face reminiscent of Dali's "Portrait of My Dead Brother." Adam starts with a continuous-tone photo, converts it to grayscale, and raises both contrast and brightness. He bumps the resolution of the image to 800 dpi. He converts the image to bitmap, triggering a series of dialogs. In the first, he sets the output to match the 800-dpi resolution and picks Halftone Screen. In the second, he sets Frequency at 20 and Angle at 45, and selects Round.

The bitmap conversion finished, Adam immediately switches back to grayscale at a 1:1 pixel ratio. To smooth the newly created halftone dots, he uses the Gaussian Blur filter at around two pixels. He then resharpenes the dots with the Brightness/Contrast... control, and reduces the resolution to a manageable 300 dpi. To get an even more Dali-like effect, he runs the image through a third-party plug-in filter from Alien Skin called Eye Candy.

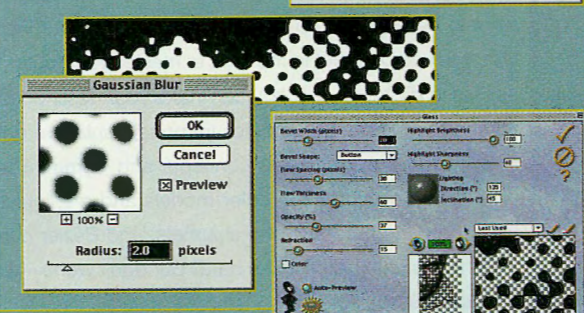
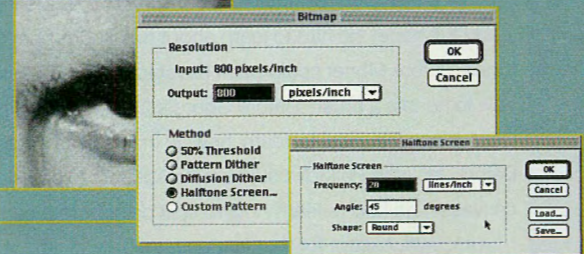
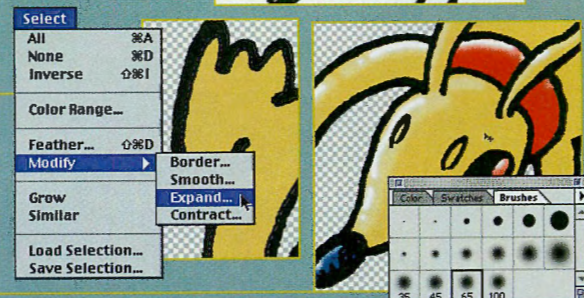
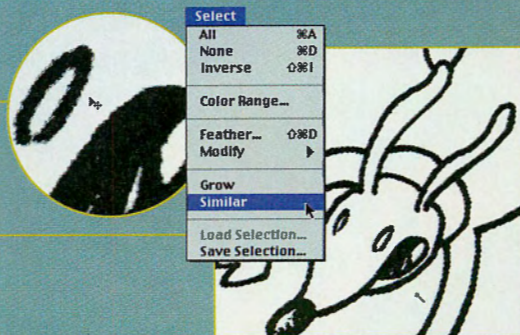
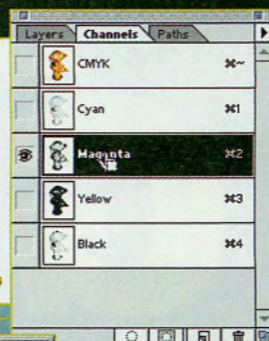
He then resharpenes the dots with the Brightness/Contrast... control, and reduces the resolution to a manageable 300 dpi. To get an even more Dali-like effect, he runs the image through a third-party plug-in filter from Alien Skin called Eye Candy.

Associate Editor Robert Capps once got beat down for claiming he had a posse.

Associate Art Director Adam Vanderhooft has just given away tricks that took him years to learn.

Andrew Faulkner invites you to study more of his work at <http://www.afstudio.com>.

secrets





# Become a Graphics

## Four Basic Concepts All Digital Artists Need to Know

By Steven Anzovin  
and Raf Anzovin

**B**efore Michelangelo could paint the Sistine Chapel, he had to learn about painting proper flesh tones. Before Monet could paint haystacks, he had to learn how to handle a brush. Before Georgia O'Keeffe could paint Calla lilies, she had to learn how to mix colors properly. Before Jackson Pollock could create abstract expressionist canvases, he had to learn how to spill paint from a can.

Um, well, except for that last one, the rule is firm: If you want to be an artist, no matter how powerful your inspiration, you've got to put in the time to master your tools. That applies to digital art, too. You can't take your destined place among the Macintosh graphics immortals until you get up to speed in the four basic concepts and common techniques we describe here: color models and manipulation, selections and masks, alpha channels, and Bézier curves. Sure, some of this stuff looks hard! But don't worry—we've made it easy!



# Guru

OK

Cancel

Load...

Save...

Auto

1

2

3

4



FIND ALL  
KINDS OF  
graphics  
programs  
on The Disc.



## color models



CMYK? RGB?  
HSB? What the  
heck do all  
those letters  
stand for? We'll show you.



## selections and masks

Before you can  
convincingly  
fake a photo,  
you need to  
learn how to make a good  
selection.



## alpha channels

Learn to use  
alpha channels  
as a force for  
good—and  
look like a pro all the while.



## paths and splines

Just what is  
that pen for,  
anyway? We'll  
put you on the  
right path when it comes to  
Bézier curves.



guru

BOUSQUET





## Color Models

If you think Roy G. Biv must have been that talented kid in your junior high school art class, you're probably also having trouble figuring out how your Mac handles color. Well, understanding the Mac's myriad ways with hues requires getting a few concepts under your belt.

For starters, there's *bit depth*—how many colors your image can contain, expressed in bits per pixel. A 1-bit image contains exactly two colors: black and white. An 8-bit image contains up to 256 colors (that's two raised to the eighth power, or  $2^8$ ). A grayscale image is an 8-bit image in which all 256 colors are shades of gray. A 16-bit Mac image contains 32,768 colors (also referred to as Thousands of

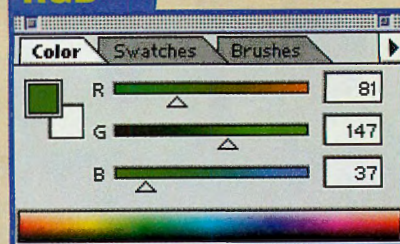
Colors). The math-minded among you will note that 32,768 is  $2^{15}$ , not  $2^{16}$ , but Apple lets you use only 15 of the 16 bits, for reasons buried in history. A 24-bit image contains 16.8 million colors (also referred to as Millions of Colors), more than the human eye can discern.

Now think of bit depth in terms of mixtures of three colors, or color channels. Computer monitors display colors using a mixture of three basic hues: red, green, and blue. Each color has its own channel. (See the tutorial on alpha channels for more details.) In a 24-bit image, each channel has 256 possible values; 256 times 256 times 256 equals 16.8 million. The values are numbered: value zero is black, and value 256 is pure red, green, or blue.

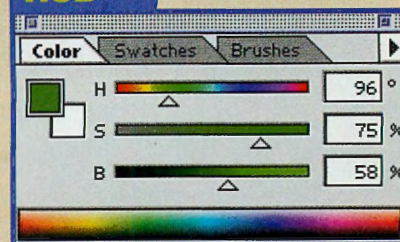
By the way, image bit depth is not the same as the bit depth that your monitor can display. Even if you set your monitor to millions of colors, it can't display more than 256 colors in an 8-bit image, because those colors aren't in the image. Likewise, if your monitor is set to display 8 bits per pixel, you can see only 256 colors of a 24-bit image. The color information that's contained in the 24-bit image is unaffected by the monitor's setting.

Any decent graphics program will let you play with various *color models* that further define image color. The default color model in Adobe Photoshop, for example, is RGB (red, green, blue), as described above; it's the default because it's the color model used in a color monitor. Colors also can be described in terms of the HSB model; that is, by their *hue* (spectral color), *saturation* (color purity, or amount of gray in the color), and *brightness* (the relative lightness or darkness of the color). That's the color model of human vision. Another color model is CMYK—short for cyan, magenta, yellow, and black,

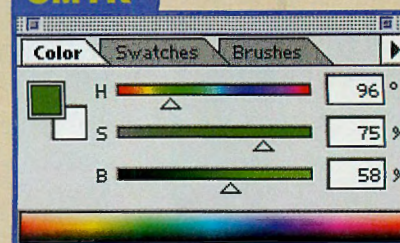
### RGB



### HSB



### CMYK



COMPARE THE RGB, HSB, AND CMYK settings for the same color green.

which are the inks used in the four-color printing process. In the CMYK model, colors are expressed as percentages of each of the four colors. Playing with the sliders on Photoshop's color palettes will give you an immediate and intuitive feel for how the primary colors in each color model interact.

RGB and CMYK are 24-bit color models. You can create *indexed-color* images with 256 or fewer colors—GIFs are a typical example—all specially indexed in a color look-up table (CLUT). Why use indexed color?



ALTHOUGH DENNIS LOOKS BRIGHT, he's muted compared with his RGB counterpart.

## BEEFY Hardware

Before you start looking for a well-wired garret with north light, make sure you're prepared. Just as the smart painter keeps a well-stocked paint box with all the right brushes and paints, you need to have the right digital art tools. Most PowerPC Macs can handle 2D graphics nicely, but you may want to beef up your machine with these muscles:

**More RAM** Graphics software needs plenty of memory. Adobe Photoshop 4 needs about 40MB all to itself.

**4MB of VRAM** (video RAM) or more for internal video, or a good external graphics card. This amount of VRAM will let you see millions of colors even on large, high-resolution monitors.

**A graphics tablet** You can draw on these flat, sensor-loaded pads with a cordless pen in much the same way you draw on a piece of paper with a ballpoint. Calcomp and Wacom Technology make the leading tablet lines.



Webmasters love it because they can create images with only the Web-legal 216 colors shared by the system palettes of the Mac OS and Windows 95. Graphics that share these colors look the same on Windows and the Mac. (Photoshop has an option to convert any image to the standard Web color scheme.) Also, indexed pictures make smaller files—all else being equal, the higher the bit depth, the bigger the file. Screen shots work particularly well as GIFs, because they contain a limited color palette.

We put Dennis through some changes, processing his images through various color models. Maybe the most interesting change was from RGB to CMYK. Note how the bright, saturated colors in the windsurf sail, which

would be vivid in RGB, are muted in CMYK. That's because those colors can't be printed accurately with standard printers' inks—the colors are *out of gamut*, gamut being the range of colors that can be displayed or printed in any particular color model. Moral: Color models aren't just different arrangements of the same old colors; you actually work with unique sets of colors under each system. Obviously, if your art is destined for four-color printing, you'll want to work in the CMYK color mode so you get an accurate representation of the output.

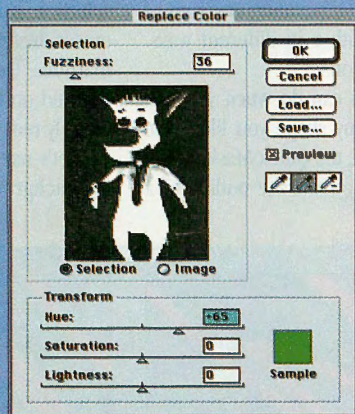
With all this color theory well in hand, here's a simple Photoshop trick for color manipulation that also reveals how the colors in an image are related. We'll turn Dennis bright green without affecting the

other colors around him (or at least not affecting them very much). The same technique can be used to change the color of any individual area in a picture, although it works best for objects that are composed of a closely related range of colors. Otherwise, you'll end up selecting colors that you don't want to alter in the process of picking the colors to be changed.

## The Right TOOLS

You'll also need the right software. But first you should figure out what kind of art you want to create:

### How to Replace a Color



USE THE REPLACE COLOR BOX to change Dennis to green while leaving the background virtually the same. Presto! Dennis now looks a little seasick all over.

**Step 1:** With the image open, choose Replace Color... from the Adjust submenu of the Image menu. You'll see a dialog box with a large black sample area. It offers tools for color selection and replacement based on the HSB color model.

**Step 2.** Start clicking with the eyedropper tool on the colors you want to replace in the image. Parts of the image appear in grayscale in the black sample area. Use the plus (+) eyedropper to add colors; use the minus (-) eyedropper to remove them. To pick up many colors that range widely from the one you click on, move the fuzziness slider to the right; to pick

up only a few closely related colors, move the slider to the left. It takes good color judgment to avoid picking up colors you don't want while grabbing as many colors as possible in the range you do want.

**Step 3:** When the image in the sample area isolates only the object you want to color, slide the Hue slider until you reach green (or whatever color you like, though some colors will work better than others). You can play with the saturation and brightness controls, too; this image happens to work well at high color saturation and brightness.

**Photoshop 4** Will you be scanning photos and putting together collages of images? Then you need Adobe Photoshop 4, the ne plus ultra of image editing programs. Every other graphics app depends on it in some way, and every serious computer artist has it. If you don't, bite the bullet and get it. (All the techniques discussed in this article have been tested in Photoshop.)

**Painter 5** Want your Mac art to look like it was made with natural media such as watercolor, pastel, or oil? MetaCreations' Painter 5 is the program for you. It lets you work with digital simulations of everything from a pencil to a paintbrush. Painter's little sibling, Dabbler 2, is a good low-cost choice for getting up to speed with natural-media tools.

**Illustrator** Will you be working with line art and flat colors for illustration? A drawing program should be your choice. The main rivals are Adobe Illustrator 7, Macromedia FreeHand 6, and Deneba Systems' Canvas 5.





## Selections and Masks

**A**fter working through the alpha channel section, your razor-sharp Mac addict mind is probably asking why you have to keep turning alpha channels into selections and back again. Don't selections just move things around? What do selections have to do with alpha channels, anyway?

To answer, let's take a trip down graphics program memory lane. Mac old-timers remember MacPaint, the first really usable paint program. Its cutting-edge features included that incredible innovation, the selection *marquee* (sometimes called marching ants). Basically, the selection marquee grabbed pixel information from a rectangular area of the picture and let you delete it or copy and paste it into any other area—in other words, selections were for moving blocks of pixels. This was how all selection tools worked for a long time, and how some still do.

Photoshop changed all that. Sure, you

can cut and paste blocks of pixels using a rectangular marquee. But you also can use selections as much more versatile tools for creating incredibly complex working boundaries between parts of images. Most better graphics programs have followed Photoshop's lead.

Selections in Photoshop can have soft edges, transparent areas, and even holes in them. Sound familiar? Yes, selections in Photoshop work the same way as alpha channels and can be turned into them or made from them at will. Selections, alpha channels, and masks (selected areas that you want to protect from some change you're applying to the rest of the picture) are as tightly related as triplets; they just do the same basic job of separating one part of the picture from another in different ways. Let's play with selections.

Imagine what you can do when you can make the selection any shape you like. One way to do this is to use the Quick Mask mode.

This allows you to create the outline of a

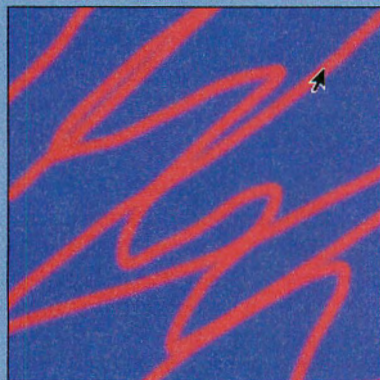


**SELECTING A PERSON'S HEAD** is tough, especially a head with lots of curly hair.

selection using the brush tool, pencil, and eraser. Instead of showing the selection as a marquee, Quick Mask mode shows it in red overlaid on the image. Transparent parts are entirely red, and opaque parts are clear.

Let's use the Quick Mask tool to modify the background of the portrait above.

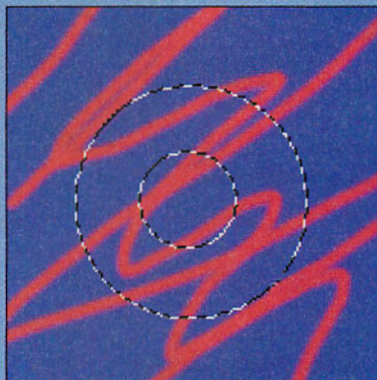
### How to Make Selections



**PAINT INSIDE A SELECTION** without affecting other areas.

**Step 1:** Create a new blank image in Photoshop. Use the marquee tool to create a rectangular selection.

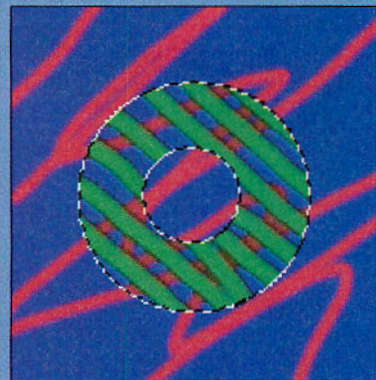
**Step 2:** Choose the fill tool and click inside the selection. The selection will fill with the current foreground color. Now take the brush tool with a different color and scribble all over the selection.



**MAKE A "DONUT HOLE"** in your selection by drawing another selection inside it.

Notice that the area outside the selection never gets painted. The selection is acting as a mask and protecting the outside image.

**Step 3:** Draw a circular shape inside the filled area with the oval tool. (Click and hold on the rectangular selection icon in the tool palette to get ovals.) Then



**PAINTING INSIDE THE DONUT** clearly shows the masking effect of selections.

press the Option key and draw another oval inside the first. This selection is subtracted from the first selection, leaving a "hole." Try painting over that. What is the mask doing?

You can think of selections in the same way you think of alpha channels, in terms of transparency. In other words, imagine that the selected area is opaque and that the



## How to Make a Mask Fast

**Step 1:** Click on the Quick Mask button on the bottom of the tool palette. The two buttons in this area allow you to toggle back and forth between normal mode and Quick Mask.

**Step 2:** Paint on the image with any painting tool. No matter what the color is, the tool will always paint a transparent red. Use a small, soft brush to paint around the edge of your figure, then use a larger one to paint the area outside the intended area of the selection. The soft edge of the brush will match the soft edge of the photograph, blending it slightly.

**Step 3:** Toggle back to normal selection mode. You now can see the edge of the selection as crawling dots.

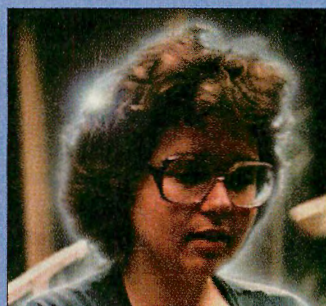
**Step 4:** Now that the selection outline allows us to use it as a mask, we've added a glow behind the woman's head using the Gaussian blur filter and the lens flare filter. For a simpler effect, you can just copy the selection you've made and paste it over a new background.



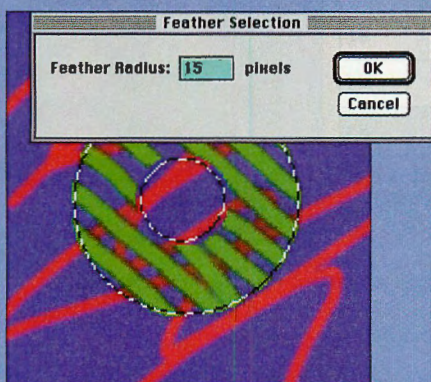
USE QUICK MASK TO PAINT a mask, at left, that can be a complex selection. Above, up close and personal.



NEXT, TURN YOUR MASK into a selection.



AFTER THE MASK IS CREATED, you can create all kinds of cool effects.



SOFTEN THE EDGE of the donut...



...AND DRAG IT ASIDE to show the result. Note that some color is left behind where the donut was partially transparent.



rest of the image is transparent. You'll see why this is important when we make the edges of our selection partially transparent.

**Step 4:** Under the Select menu, choose Feather. Feathering blurs the edge of the selection so that the edges fade out into transparency—it's an old term borrowed from painters, who used an actual

feather to soften and blend the edges of a painted area. In the dialog box, set a pixel radius of 15; the higher the number, the thicker the feathered area. Your selection now should have a kind of rounded, bloated look. This is because when dealing with variable transparency within a selection, Photoshop always puts the marquee line at the 50 percent transparency area.

**Step 5:** Now move your selection into the white area of the image. (In Photoshop 4, press the Option key as you drag to move the selection and its pixels; just dragging moves only the marquee.) The effects of the feathering function are now evident. The edges have a soft, transparent look, which makes it much easier to blend a selection with a new background.





## Alpha Channels

**A**mong the most powerful and least understood features of Photoshop—or any paint program—are alpha channels. Yet these secret images in your image file, normally invisible to the naked eye, are the key to achieving the sophisticated image compositing that separates graphics gurus from Sunday pixel pushers. Luckily, using alpha channels actually is not hard at all.

To understand alpha channels, you've got to know that a true-color image on the Mac contains 32 bits of color information for each pixel. This color info already is arranged in three channels, one channel of 8 bits each for the red, green, and blue (RGB) parts of the image. The RGB channels use 24 of the total 32 bits available. The alpha channel is an additional channel that

uses the remaining 8 bits to set the transparency of the image. The issue of transparency becomes important when you layer images, placing one image on top of another; the alpha channel of the top image determines what parts of the bottom image will show.

In its simplest form, an alpha channel is something like a paper stencil—just a white area surrounded by black. The black area is always transparent, and the white area is always opaque. But you're not stuck with simple black and white. Alpha channels can have up to 256 degrees of transparency. Shades of gray yield equivalent degrees of transparency, allowing soft edges.

How do you make an alpha channel? It's extremely simple. Here's how:

- Create a new, blank document. Use any selection tool to make a small selection.
- Choose **Save Selection**—you'll get a dialog box asking

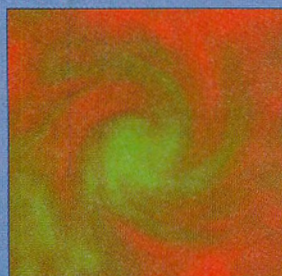


**THIS COMPOSITE USES THE SAME alpha channel techniques to help Irwin Alien hop some hot rocks.**

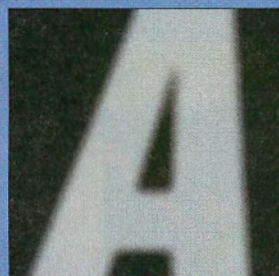
where to save it to. Click OK.

• Open the Channels palette. You'll see four channels: RGB, Red, Green, and Blue, and a new, fifth channel on the bottom named #4. Click on #4 and your image will be replaced by a black image with a white area shaped like your selection. That's the image's alpha channel. You can use the usual Photoshop tools to paint on the alpha channel.

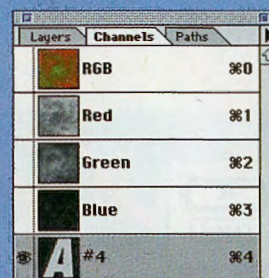
### How to Make an Alpha Channel



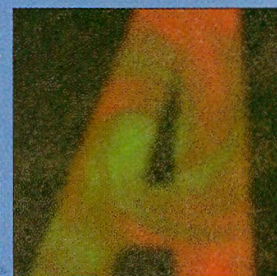
**A PATTERNED BACKGROUND** created in Photoshop...



**...AND ITS ALPHA CHANNEL:** White areas are transparent; black areas are opaque.



**AN ALPHA CHANNEL** is the fourth channel in a 32-bit RGB image.



**THE COMPOSITE.** Notice how the alpha channel's brightness creates the foreground transparency.

**Step 1:** Create an image with a colorful pattern (see above). Photoshop's Clouds and Swirl filters were used to create this example. Save it as Pattern 1. Create a second pattern, using colors that contrast well with the first pattern, and save it as Pattern 2.

**Step 2:** Go to the Channels palette. You'll see four channels: Red, Green, Blue, and an RGB channel, the sum of the other three. Using the Channels palette pop-up menu, available from the little arrow at the upper right of the box, choose **New Channel**. In the Save dialog box, name the channel Alpha. Your image now has an alpha channel.

**Step 3:** Now let's put something in the channel. Click on Alpha in the Channels palette to display the alpha channel. It should be completely black—that is, completely transparent. Using the Type tool, place a large white letter over the black background.

**Step 4:** Let's play a bit with the letter. First, we'll blur the edges. Choose the Gaussian blur filter, set the blur radius to 5, and apply. Blurring the edges will result in a gradual fade to transparency at the edge of the letter. Also, go to the Image menu, select **Adjust**, and open the Brightness/Contrast box. Turn down the brightness to make the letter slightly

transparent when it's composited with a background. That way, you'll get a nice, soft stencil effect.

**Step 5:** The final stage involves compositing Pattern 1 and Pattern 2, with the help of the alpha channel. Making sure the current document is still Pattern 1, choose **Load Selection** from the Selection menu. The alpha channel will be the default available selection—choose it. You'll see a new selection in the shape of the letter. Copy the selection and paste it into Pattern 2. You've now started down the path of alpha channels. Use this knowledge wisely when you're faking that alien sighting photo.





# Paths and Splines

If you've ever drawn a shaky squiggle with the pencil tool in any paint program, or in Photoshop, you know there's got to be a better way to draw a curve. There is: Bézier splines, also called Bézier curves or paths. Whoa—sounds French, and probably très difficile, non? Not! Drawing paths takes some getting used to, but it's another technique you'll definitely want to learn, especially if you plan to spend any time in one of the major drawing programs such as Adobe FreeHand or Illustrator, which depend mainly on paths, also called *vectors*, to do their linear thing.

A Bézier path is a mathematically defined curve that you draw with the pen tool. Unlike a line drawn with the pencil tool, which is

merely a string of pixels, a Bézier path is independent of what you see on the screen. That is, after you draw a path, you can reshape and manipulate it until it looks just right. Also, you can apply any thickness or color of line to the path, print it at any resolution, and perform any number of other tricks.

Drawing a path may look difficult, but with practice, it comes easily. Let's experiment with the most basic Bézier path, which consists of just two points and a path between them. You'll make points, add handles, adjust the curve, and make a closed path—all the basic operations. We'll work in Photoshop, but the techniques are much the same in any drawing program.

Paths are of primary importance in a drawing program such as Illustrator, which uses them to create any curvilinear line or



PHOTOSHOP'S PATH TOOLS look and work in much the same way as those of most drawing programs.

shape, but they also come in very handy in Photoshop. By adding and subtracting paths, you can create complex selections that would be impossible to draw with the lasso tool and too laborious to create with Quick Mask.

Paths also can be used to direct the motion of most Photoshop tools. For example, you can use a path to create smooth, flowing strokes with a brush without any of that wiggling caused by using the mouse. ■

Raf Anzovin drew hundreds of pictures of Horton the Elephant when he was 3 years old. Steve Anzovin drew hundreds of pictures of Farfel the Dog when he was 3 years old.

guru

## How to Use Paths

**Step 1:** Choose the pen tool from the toolbar. Click where you want the first point. A small square will appear, representing the path's starting point.

**Step 2:** Click where you want the second point. A straight line stretches between the two points, making a simple path. Now let's use the same two points to make a curve. To do this, we add handles to the points; these control the curve between the points.

**Step 3:** Click and hold on the pen tool icon to see a pop-up menu of other path manipulation tools. Choose the one that looks like a pointy boomerang. This tool can add handles to a point, or take them away if it already has them. Click and drag on one of the points. Two lines with little handles at their ends will extend from the point in each direction as you drag. The path also will distort in the direction of one of the handles.

**Step 4:** Go back to the pen tool pop-up menu and choose the empty arrow tool. This is the general manipulation tool, which can be used to move points or handles. Now experiment by moving the handles into different positions.

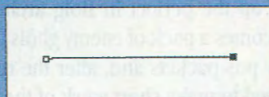
Stretching out the handles makes more gradual curves; shortening the handles makes sharper curves. (This is called adjusting the tension of the path.) If you add handles to the end point, you can create some pretty wild shapes. If you get totally tangled up, press the Delete key twice to clear all points and start again.

Of course, you're not limited to two points. Using the pen tool, you can draw any string of points you want, or you can use the point-plus tool to add points in the middle of a path. Let's add more points to the path, then close it, creating an unbroken shape.

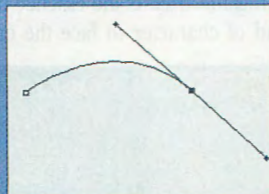
**Step 5:** Click on one of the points with the pen tool to make it active, then click anywhere else in the frame. The path will be continued from the point you last clicked.

**Step 6:** The point you just put down has no handles. Now click and drag somewhere else with the pen tool to extend the path. A point will appear where the click begins, and handles will drag out from the point as you continue to drag the path. This avoids the extra step of using the boomerang tool to create new handles.

**Step 7:** Now we'll close the path by connecting the last point to the first. Bring



**TWO CLICKS** with the pen tool give a basic Bézier curve.



**PLAY WITH THE TENSION** of the curve by dragging out the handle on the path's end point.



**CLICK ALONG THE OUTLINE** of a shape to create a complex path, then adjust it with handles.



**WE OUTLINED THE BABY** in electric blue by stroking the path.

the pen tool over the first point in the path. A little circle will appear next to the pen tool's icon, indicating that you can close the path.





# reviews

We stopped playing Myth just long enough to try Riven. Well, someone did, anyway.

## Myth: The Fallen Lords

**COMPANY:** Bungie Software Products

**CONTACT:** 800-295-0060 or 312-563-6200, <http://www.bungie.com>

**PRICE:** \$49.95 (street)

**REQUIREMENTS:** PowerPC, System 7.5 or later, 16MB of RAM (32MB recommended), 16-bit color at 640 x 480, 4X CD-ROM drive. Multiplayer game requires 28.8Kbps or faster Internet connection, a local-area network running TCP/IP, or an AppleTalk network.

It doesn't take much to ruin someone's day in Bungie's newest real-time strategy/tactics game, Myth: The Fallen Lords. For example, an opponent in a network game may spend a good three or four minutes setting up the perfect fir'Bolg archer line along a canyon rim, and along comes a pack of enemy ghòls behind the archers. The ghòls toss a few pus packets and, after the resulting explosions and paralysis, proceed to make short work of the bowmen. Suddenly, it's a whole different game. That is the essence of Myth—judicious use of the right kind of character to face the enemy and the constant

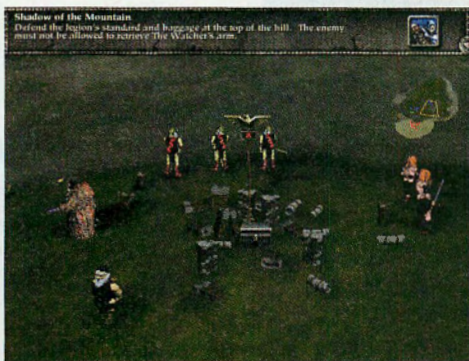
shifting of fortunes as troops skirmish and fall. Oh, and the knowledge of when to stand your ground and when to retreat. Retreating is very important.

In single-player Myth, a player controls troops from the armies of light (warriors, archers, berserks, dwarves, and so on), moving them about on the game map and attacking enemies. As a player works through the 24 included scenarios, a storyline about the cycle of darkness and light emerges, with the player striving to set things right through a series of battles. Sounds simple.

Well, it's not. Each character type in Myth has its own strengths and weaknesses, and it's important to know those strengths and weaknesses. The player who pits thralls against dwarves probably is going to lose a lot of thralls, whereas the player who pits berserks against the floating soulless will know victory. The landscape in Myth also complicates matters, as the ground is truly three-dimensional. Perch



**THIS SCENE LOOKS SERENE, but notice the mass of enemy red dots on the overhead map (in upper right-hand corner of the screen).**



### Wade's Tips

- **Distance your dwarves**—Keep these morons in front of or well behind your other troops so they don't accidentally blow up your own forces.
- **Selectively place archers**—Put your archers on the highest ground possible, in a long or loose line.
- **Target enemy missile units**—Missile units usually are a key factor in a battle. Take these units down as quickly as you can.
- **Use satchel charges**—You heard me, use them!
- **In network games**—Use your journeyman to unheal a wight; then have your ghòls pick up the pus packets. Send your ghòls after the enemy's archers. Often you will take out most of them before they can kill your ghòls.

### Kathy's Tips

- **Use the gesture click**—Select a group, decide where to put it, and click and hold there. Release the mouse button, and flick the mouse in the direction you want your troops to face. A backward-facing line is fatal.
- **Target the soulless and wights**—Get rid of these distance killers so your dwarves, warriors, and berserks can move in for the kill without getting picked off.
- **Learn how to manage presets**—You'll be able to direct troops to points on the battlefield without moving the camera between the start and end points.
- **Use waypoints**—Direct your troops to the other side of a battle without going through the thick of it.
- **Save films**—Particularly spectacular explosions are sure to entertain.





### SOMETIMES YOU SIMPLY MUST run away to win.

some archers and a couple of dwarves on top of a hill, and those characters will gain a tremendous advantage over an enemy trying to take the hill. Characters also can use the landscape for cover, hiding behind trees to avoid arrows, pus packets, or Molotov cocktails.

Control in Myth is easy. Just click on a character (or characters), then click on a spot on the map where the character should end up. To initiate an attack, select a character, then click on the enemy who should be attacked. The battlefield is viewed from an unrestricted camera, which lets you rotate and zoom around the scene of carnage, viewing it from all angles.

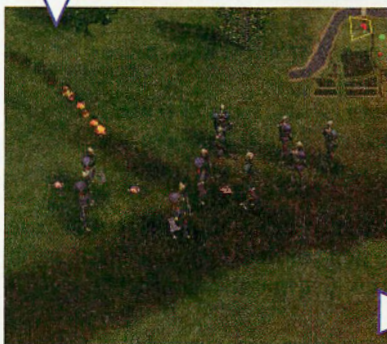
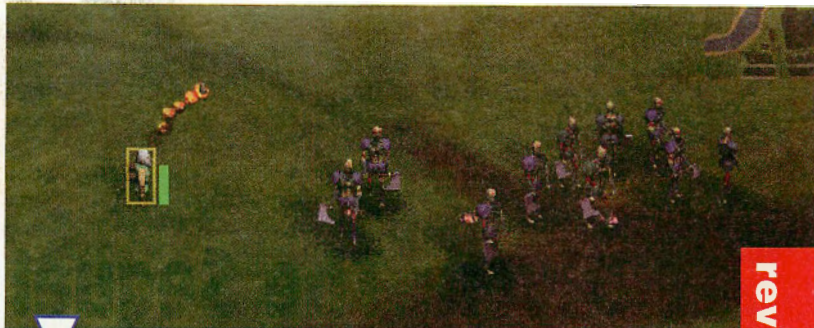
Myth would be a pretty good game as described, but the folks at Bungie paid special attention to the little things, nudging Myth just a notch higher into its own rarefied category. Soft, subtle sounds immerse you in the Myth world. Arrows clatter when they hit the ground, armor rattles among restless warriors who are standing around, and water splashes as soldiers cross an icy stream. Myth's



### THE THRALLS DON'T STAND a chance against these bloody berserks.

## Dave's Tips

- **Use sound location**—In network games, move the camera over the landscape to hear trows stomping around the landscape even if you can't see them.
- **Protect your archers**—Archers are invaluable and vulnerable. If you lose the air-superiority skirmish, you've lost the battle.
- **Control your dwarves**—Dwarves are powerful but not bright. Watch over them at all times, or they'll destroy their own troops.
- **Use special abilities**—Ghòls can throw things and taunt; dwarves can use satchel charges, and journeymen can heal (or unheal undead). Make sure you use the full range of your characters' abilities.
- **Use your presets**—Myth has 10 slots for grouping characters. Use them to send your troops across the board with extreme efficiency.



**EXPLOSIONS ROCK!** Notice the satchel charges on the ground in the second picture that explode in the third. Can you spot the flying face?



audio uses stereo panning, making it louder in the right speaker if the sound source is to the right of the camera, or louder in the left speaker if the sound source is to the left of the camera. Myth's physics model is accurate, too. Arrows bounce off shields and trees, blood splatters the landscape, and body parts fly through the air. These items don't disappear, either. The debris of battle builds up on the field.

The single-player Myth scenarios are only half of what's great about this game. After all, there's nothing like playing against another human—or humans. Myth includes a network module that lets players compete via an AppleTalk and TCP/IP network. Or gamers can connect to Bungie.net (<http://www.bungie.net>) and compete against Myth players anywhere. Bungie.net keeps track of players' victories and defeats, and assigns a caste based on these records. Up to 16 players can play in a network game at one time. Teams of players can form orders, and these orders can challenge others to network combat. Even better, players have the opportunity to use units from both the light and dark sides. (There's nothing like the thrill of a trio of trows stomping a foe.) In the first weeks following Myth's release, Bungie's servers have been hit hard, and it's not always easy to connect. Hopefully, access will improve as time goes on.

Bungie pushes real-time gaming into a new realm with Myth. The game's amazing rotating 3D camera, the realistic landscape, the gore, the physics, the attention to minute details, and a great network component make Myth one of the most inspired games for the Mac in the past year. We've come to expect nothing less from Bungie, makers of fine titles such as the Marathon series. If you enjoyed games such as Westwood Studios' Command & Conquer and Blizzard Entertainment's Warcraft, you will positively love Myth. —David Reynolds



**GOOD NEWS:** Challenging scenarios. Beautiful 3D graphics viewable from any angle. Realistic physics and gore. Amazing attention to detail. Great network play, even over a modem.

**BAD NEWS:** Supports only 3Dfx acceleration. Dwarves are exceedingly stupid and will destroy their own troops if not watched very carefully.





# reviews

## Riven: The Sequel to Myst

**COMPANY:** Red Orb Entertainment

**CONTACT:** 800-521-6263 or 415-382-4770, <http://www1.riven.com>

**PRICE:** \$55 (street)

**REQUIREMENTS:** 90MHz or faster PowerPC, System 7.5 or later, 9MB of RAM, 65MB of free hard disk space, 4X or faster CD-ROM drive, 14-inch monitor displaying thousands of colors or better

The bearish, bearded man scratches his pen across the page of the thick book. He stops and looks up, squinting to see in the dark room. "Thank God you've returned," he says. "I need your help."

If this opening scene from Riven gives you a chill of anticipation, surely you've played Myst, the CD-ROM adventure that became the best-selling computer game of all time. It has been a four-year wait for Myst's sequel (cleverly subtitled "The Sequel to Myst"), and, if you liked Myst, you'll hardly need our recommendation, but here it is: Buy Riven. This is a rich, atmospheric follow-up.

Riven is an evolutionary, not revolutionary, step beyond Myst. Riven, the *Fifth Age*, rises out of the same haunting music and similar immersing sounds and sights as Myst. But this time the sights are much more spectacular and realistic, the sounds more subtle and sublime, and the puzzles more diabolically difficult. There are other differences as well. This time, your mission is laid out at the start: You must trap Atrus' father, Gehn, in a linking book and save Catherine before you can leave Riven. There's lots more animation than in Myst, allowing you to finally interact with Atrus and his odd relatives. And this time, when you make mistakes, you can die.

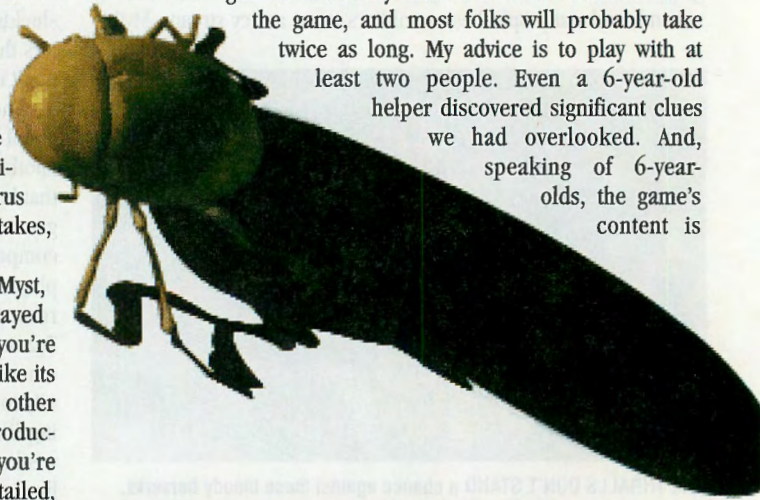
If you never played Myst, even if you've never played another computer game, you're in for a real treat. Riven, like its predecessor, is unlike any other game. After a sketchy introduction by the bearded Atrus, you're dropped into a lavishly detailed, mythical world, free to roam and explore. Follow trails through lush jungles, navigate dark tunnels through mountains, wander along beaches, and explore a primitive village of extremely shy—or terrified—people. Traveling among the islands that make up Riven, you will spend much of your time trying to understand the mysterious, steam-powered contraptions. The game has no time limit, you'll almost never collect objects or tools, and you'll never hold or use a weapon. In fact, at the outset,



**NOW, WHY DO YOU SUPPOSE the trees have been cleared here?**

you won't even have a clear idea of exactly what you're looking for or are expected to do in order to achieve your goal. You'll spend your first hours trying to understand this world—how to navigate it, who populates it, and what's going on.

Mastering Riven is fiendishly difficult. Even experienced gamers will likely need at least 20 hours to finish the game, and most folks will probably take twice as long. My advice is to play with at least two people. Even a 6-year-old helper discovered significant clues we had overlooked. And, speaking of 6-year-olds, the game's content is



### Riven Easter Eggs and Secrets

- As you explore the village, you'll find a door knocker on a house. Knock five times for a small surprise. This trick works only the first time you try it.
- Somewhere in the game is a padlocked door that you must crawl under. Once you're inside, look closely at the rock wall to the lower right for some hidden faces.
- At the spot where you first entered Riven, you can approach a cliff and look down. Take a look when you first arrive. Later in the game, return there and notice the change. Then take a close look at the cliffs on your left—you'll see two faces hidden in the rocks.

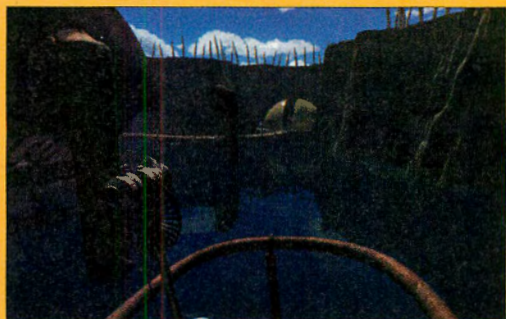
We found some of these hidden secrets at the Riven Hints page (<http://riven.supernews.com>). Do *not* look through this Web page until you've finished Riven.



**UNLIKE ITS PREDECESSOR,** Riven lets you interact with its cast of characters, including this man, who may or may not be your worst enemy.



## Riven Tips



**To open the rotating domes** you find on the islands, look through the *kinescope* and click the button on its top quickly and repeatedly. We are not spoiling a puzzle, Riven's Read Me document explains this.

**You must pay attention** to everything, map everything, write down everything, and sketch every significant shape. This isn't just so you can find your way around—it's essential to solving Riven's mysteries. Don't forget that you can use Command-Shift-4 to take a snapshot of any part of the screen.

**Zip mode** lets you skip over short pieces of territory. Use it *extremely* sparingly. Walking over old territory is your only hope for discovering details you missed the first 20 times. You also can hit the spacebar to end an animation early. Again, use this feature very sparingly.

Don't bother sketching or taking pictures of the images under the beetle idols in the five-sided room. They're all reproduced on the CD jackets.

**When you get stuck**—and you will get stuck—don't rush out and order *The Official Riven Hints and Solutions Book*, published by BradyGames (\$20), at least not right away. Set the game aside for a couple of days, then go back and re-explore some of the most promising areas. If you finish the game on your own, you'll be so proud. Remember that almost nothing in Riven is insignificant. But when you're really stuck, check out the Riven Hints page, <http://riven.supernews.com>, where you can seek out specific hints without spoiling the rest of the game, or call 900-7REDORB and receive specific tips at a buck a minute.

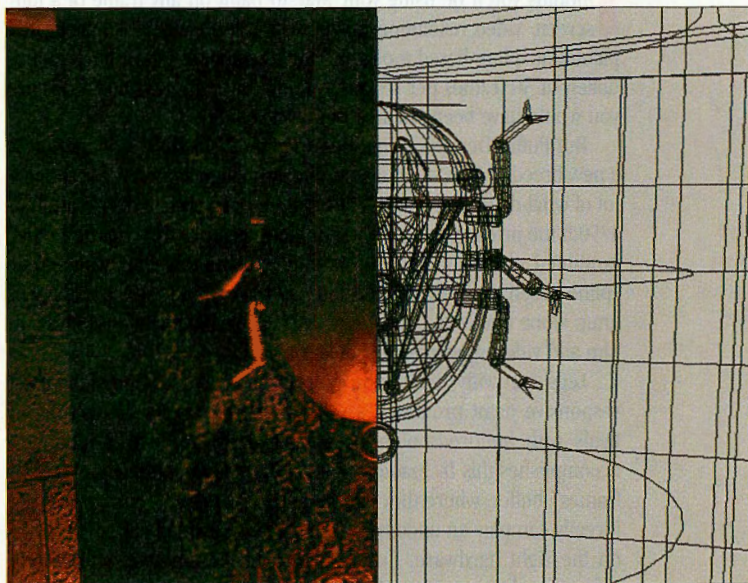
appropriate for even young children (although the puzzles often are much too difficult).

Riven stands out in nearly every respect, not only from its predecessor *Myst*, but also from such similar fine games as *Obsidian* and *Amber: Journeys Beyond*. Visually and aurally, it sets new standards. The graphics are always grand and occasionally breathtaking. There's lots of QuickTime animation, which isn't just peppered between static graphics. Riven's forests, for example, are alive with flying, winking insects and buzzing beetles. Birds casually wheel and call in the sky. The water shimmers. The effect is so dazzling we could feel the sun's heat on the back of our necks and the breeze blowing through our hair.

Riven also plays like no other game, not even *Myst*. Although it consists of numerous puzzles, there's no mad magician arbitrarily throwing a board game in your way before you can unlock a door. Riven's puzzles are so deeply integrated into the "plot," they never feel contrived or artificial. The illusion of exploring a



**WHO IS THAT FIGURE** walking back and forth in the windows across the way?



**FROM WIRE FRAME** to deliciously rendered final, Riven is a complex and beautiful world. These beetles are more than mere denizens of Riven.

real, if surrealistic, world remains intact until the end.

Unfortunately, movement through this world remains primitive. Turning to the left or right reveals the seams: The beautiful vistas slide from one to the next, like a slide show. Your progress forward is indicated by dissolves between images. If you've played *Doom*, *Quake*, *Marathon*, or the others, you'll be thrilled by Riven's graphics but not by any realistic 3D movement. And all this multimedia takes considerable computing power. Even on a Power Mac 8500/150 with its 8X CD-ROM player, there were noticeable lags in the animation. And did we mention that Riven comes on *five* CDs? Switching among discs often breaks the mood.

That said, the game is fantastic. Turn off the lights. Hook up your best stereo speakers or dust off your headphones. Set aside a few hours and take the phone off the hook. Take a deep breath and click Play Riven. —Joseph O. Holmes



**GOOD NEWS:** Beautiful. Engaging. Sets a new standard for immersing adventures.

**BAD NEWS:** Still stuck in *Myst*'s primitive non-3D movement. Older Macs left out in the cold.





# reviews

## Commotion 1.0

**COMPANY:** Puffin Designs

**CONTACT:** 415-331-4560, <http://www.puffindesigns.com>

**PRICE:** \$2,495 (SRP)

**REQUIREMENTS:** PowerPC (604e or faster recommended), System 7.5 or later, 16MB of application RAM (recommended: 32MB application RAM for video work, 80MB for film work), QuickTime 2.5, Object Support Lib extension, video card recommended

If you'd gone up to a digital video pro last year and said, "In 12 months you'll be using your Mac to paint on any frame of a full-screen, video resolution movie, with a full range of sophisticated paint and spline-based tools, and then be able to play it back immediately at 30 frames per second without any compression," odds are you would have been laughed out of the studio.

But Puffin Design's Commotion makes it possible. Commotion is a new breed of Mac video effects and animation software, providing a lot of what dedicated systems like Quantel's Harry can do—for about 1/50th the price. Among the possibilities: remove wire rigs and other unwanted objects, composite multiple images together with Bezier spline-based traveling mattes, and paint at lightning speed. This program alone makes the Mac an entirely viable platform for Hollywood film and video special effects postproduction.

Let's start with Commotion's blistering speed. It's one of the most responsive paint programs we've ever used, despite the fact that it deals with hundreds of frames, instead of only one. Commotion accomplishes this by loading as many frames as possible into a "live frames" buffer, where they can be edited or played quickly. And yes, it really can play an uncompressed 640-x-480 video clip at 30 fps—on the right hardware, that is. We tested Commotion with several video boards on a 200MHz 604e with a 512 cache and 160MB of RAM (when you're using Commotion, you want as much RAM as you can get). A video-resolution clip couldn't quite make 30 fps on a Xclaim VR board from ATI or an Imagine 128 board from Number 9, but the trusty old Xclaim 3D board did the job. Commotion also provides handy workarounds for the RAM impoverished, such as the ability to load only part of a given frame instead of the entire thing.



The brushes and options palette controls how a given tool works.

Display and paint on your movie in the Clip window.

The Player palette plays your movie and controls the number of frames loaded into memory, rendering.

This toolbar is modeled on Adobe Photoshop's toolbar.

Commotion's painting tools are the equal of almost any other paint program. Onion-skinning—the ability to show previous or following frames as translucent layers over the current frame—is especially well implemented. You'll get more previsualization help in the Time Adjust and Animation Timing functions, which give you manual control over the timing of a clip.

The wire removal tool deletes thin lines (such as those created by wire rigs, mic booms, telephone poles, aerials, and the like) by blending the pixels around them, or by referring to pixels in other frames or other files. To remove larger objects, use Commotion's powerful Super Clone Tool. You not only can clone from another area in the same frame, but you can clone from any frame in any open document, and easily switch between multiple clone sources. The area you are cloning from can be easily adjusted, since Commotion superimposes the clone source over the image you intend to clone to.

Commotion extends Photoshop's pen tool into the fourth dimension with the Rotospline tool. Rotosplining is primarily intended to generate alpha channel masks that exactly follow an object. Other programs can do this, but Commotion's implementation excels in strong keyframe and velocity controls. And since Rotosplines also can control any of Commotion's paint operations, the possibilities are almost limitless.

No first release is perfect, of course. Commotion's Save command saves only the area loaded into memory. Since higher-resolution movies must be loaded in pieces, you can easily lose half your work and not know it. Using Save As instead of Save and throwing out the extra copy prevents this. And Rotosplines aren't as responsive as some other Bezier spline implementations. As of this writing, Commotion could not move the contents of selections or paste them from the clipboard, but Puffin plans to release an update to fix this.

Despite these minor flaws, Commotion is refreshingly competent. Its special-effects-oriented tools and speed don't just rival those of expensive high-end systems—in some ways, they surpass them. Put Commotion together with Adobe After Effects, Adobe Premiere, a good 3D program, a few plug-ins, and some decent hardware, and you're playing with unprecedented effects power. —Raf Anzovin



**SuperClone1:** A misaligned bone in this image of Dennis (rendered in Lightwave 3D) created a weird hump on his back.



Using a clean plate (an image of the background) and Commotion's Super Clone Tool, we corrected this flaw without spending another day re-rendering.



**GOOD NEWS:** Real-time movie playback and painting. Advanced cloning tools and roto splines. Wire removal. Incredibly fast.

**BAD NEWS:** Crippled selection tool as of version 1.0.5. Rotosplines are slow. Save function does not work as expected.



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# reviews

## FileMaker Pro 4.0

**COMPANY:** Claris

**PRICE:** \$199 (SRP), \$99 upgrade

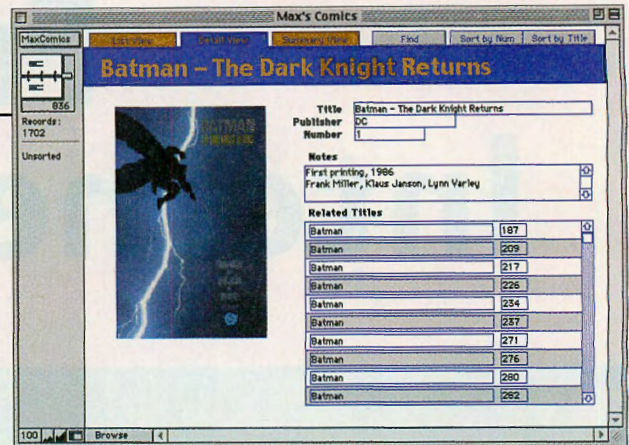
**CONTACT:** 800-544-8554 or 408-727-8227, <http://www.filemaker.com>

**REQUIREMENTS:** System 7.1 or later, 8MB of RAM for PowerPC, 4MB of RAM for 680x0 (8MB of RAM for 680x0 with Web Companion enabled), TCP/IP, AppleTalk, or IPX/SPX network connection required for sharing databases

**F**ileMaker Pro addicts will welcome the latest upgrade from Claris as this popular and versatile database program gets Internet savvy in a serious way. At first pass, FileMaker Pro 4.0 appears quite familiar. Even though it sports a new version number—implying a major upgrade—there are new database-building features to be found. Sure, FileMaker Pro 4.0 offers a few token additions—users may now set Sort preferences for portals, rotate text and fields (which is cool), apply more precise Find commands, and a couple of other minor tweaks—but the big news in store for database mavens is in the program's Web publishing tools.

No longer is it necessary to learn arcane scripting commands (CGIs, PERL) or use other tools (BlueWorld's Lasso, Everyware's Tango, or Web Broadcasting's WebFM) to publish a FileMaker Database online. You now have two options—one easy, one hard—for getting that killer comic book collection onto the Internet.

The path of least resistance takes care of all your HTML, layouts, and so on. Simply turn on the Web Companion plug-in in the Application Preferences dialog box, then enable a database for sharing via the Sharing menu command. Open your favorite browser, type in your IP address (the funky number in your TCP/IP control panel that serves as your Mac's address on the Internet), and—bang—you'll see your database. It took us all of five minutes to get our first database shared on the Internet, without looking at the manual first. Before FileMaker Pro 4.0, you were looking at a day's work, easy, and it wasn't an intuitive process.



**FILEMAKER PRO ALLOWS MAC ADDICTS everywhere to build custom databases for just about anything. You can now sort related portals!**



**WE WISH THE SCRIPTMAKER had been updated with 4.0, though, this is our old "friend" from ages past.**

The drawback of taking the lazy way is that you have virtually no control over layout. FileMaker Pro sets up a generic home page listing shared databases on your machine and uses a template for your database's user interface. This is great for someone who thinks HTML should be left to propellerheads, but for those who want more control, there's the hard way.

Claris created a pseudo markup language for working with FileMaker Pro databases. Added into your Web pages, CDML tags (Claris Dynamic Markup Language) make the appropriate calls to a referenced database. Using these tags, it's up

to the Webmaster to build the user interface for the online database, but they do offer great flexibility and total control over presentation, including the ability to launch scripts in FileMaker Pro. CDML syntax is easy to pick up and includes a wide variety of Internet specific functions that otherwise never would have applied to FileMaker Pro. For example, email commands in CDML make it possible to set up mail lists and the like. CDML tags really apply the strength of posting FileMaker databases online and give Webmasters the tools they need at a massive savings.

FileMaker Pro 4.0 isn't without faults, however. One glaring frustration is that setting up databases to be shared online requires a constant Internet connection. If you're working from home through a modem, this can be a hassle.

Finally, FileMaker Pro 4.0 fails to deliver for users who don't want to post to the Web. There are a few token improvements, but not enough to justify the steep \$99 upgrade. The ScriptMaker alone has needed an overhaul for years yet remains untouched.

The bottom line on FileMaker is that it is the best database program on any platform. The bottom line on version 4.0 is that it adds extraordinary power for Web work, but not much for those who already own FileMaker and don't need to post online. —Tomoko Shimizu

## Our Advice

**Always use the Set Field command** in ScriptMaker, in lieu of Copy and Paste. You can set a field even if it's not on your current layout, and you'll be less prone to problems if a user does something funky.

**Command-click on a field** to set that field's attributes (font, border, and the like) as your default for new fields.

**Option-drag a field** to create a duplicate of that field. Then, double-click to assign it to a different field.

**To create relational databases**, always use ID numbers as linking fields. FileMaker Pro indexes only the first 256 characters in a text field, so it would be possible to relate the wrong records via text fields.

**Setting calculations to return numbers** (instead of dates) for date fields allows you to apply math easily to dates. FileMaker Pro stores dates internally as the number of days since 1/1/0001.



**FIND A TRIAL version of FileMaker Pro 4.0 on The Disc.**

**tips**



**GOOD NEWS:** Instant Web publishing—literally. Best database program in existence.

**BAD NEWS:** Web Companion requires constant Internet connection. Few new features for non-Internet database building.

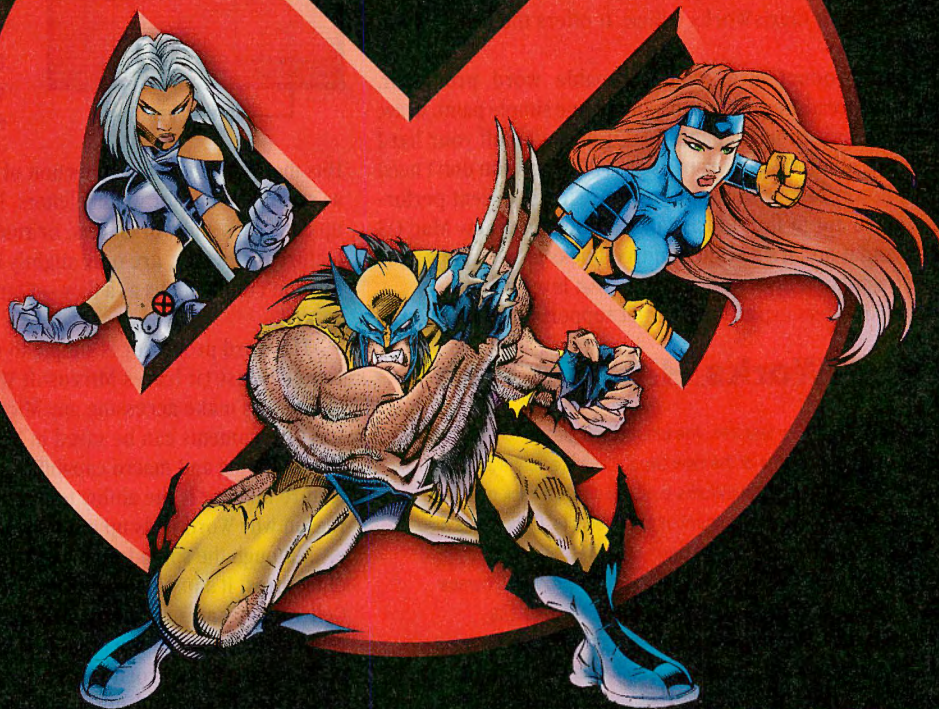


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# reviews

reviews

## ClarisWorks Office 5.0

**COMPANY:** Claris

**CONTACT:** 800-544-8554 or 408-727-8227, <http://www.claris.com>

**PRICE:** \$99 (SRP); \$30 rebate to users of previous versions or \$49 for upgrade without bundled extras

**REQUIREMENTS:** 68020 or faster, System 7.0.1 or later, 8MB of RAM, CD-ROM drive

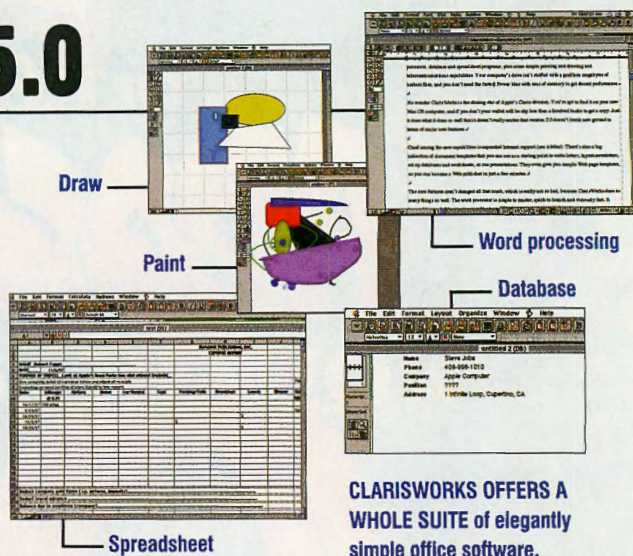


**FIND A TRIAL**  
version of  
ClarisWorks  
Office 5.0 on  
The Disc.

**M**ost publishers of office software suites take a kitchen sink approach. Toss in enough features, and they're apt to impress customers and possibly create a few obscure new amenities that someone, somewhere, will someday need. Claris takes a different tack with ClarisWorks Office. It offers the features you actually will use.

This one product gives you a capable word processor, database and spreadsheet programs, plus some simple paint, draw, and telecommunications capabilities. It doesn't stuff your hard drive with a gazillion megabytes of useless files, and you don't need the fastest Power Mac with tons of memory to get decent performance. You're apt to find ClarisWorks Office on a new Mac OS computer, and if not, it's a scant hundred bucks to get a copy. This package does what it does well and is a great investment.

Version 5.0 offers expanded Internet support (see ClarisWorks



**CLARISWORKS OFFERS A WHOLE SUITE of elegantly simple office software.**

Hits the Web) and a big collection of document templates to serve as starting points for writing letters, laying out newsletters, setting up databases and worksheets, or running presentations. The core features, however, are only slightly improved since version 4.0. But don't think of this as a flaw—ClarisWorks does so many things so well.

The word processor is simple to master, quick to launch, and viciously fast (it leaves Microsoft Word in the dust). Improved translators make accessing any Microsoft Office '97 document a snap (documents can be saved in MS format as well). Even passable outlining and macro capabilities are here. About the only key feature missing is the ability to track text revisions (which is one reason why Word ends up in the hands of many publishers).

Although the spreadsheet won't rival Microsoft Excel's breadth of features, it's just dandy for individual and small business use. Cell ranges can now be named rather than using cryptic cell references. The database module is very much like older versions of Claris FileMaker Pro; it sports a similar interface. Set up address books, invoicing, and other features rapidly without having to spend much time poring over manuals (a good thing, considering that much of the information on how to use the program is found only in the online Help menu).

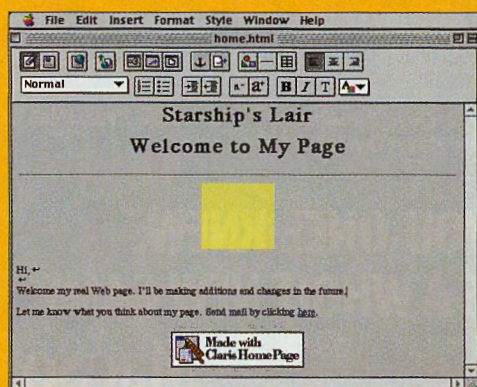
A few features rank as merely usable. ClarisWorks Office's draw and paint modules are still limited to simple artwork, but because the program can import files from other drawing programs, this isn't a big shortcoming. The communications module is OK but simple; it lets you check your modem or get files from a bulletin board service.

Aside from these ho-hum features and occasional slowness when handling large documents, there's little else to criticize about ClarisWorks Office. It's simple and elegant, and switching from one component to another (word processor to spreadsheet, for example) can be done in a mouse click. —Gene Steinberg

### ClarisWorks Hits the Web

Although it's otherwise slim on new features, the Internet integration for ClarisWorks Office is extensive. Some of the new capabilities are very well done, such as the ability to embed links in ClarisWorks documents. Just click on these links to go right to another part of the document or to a Web site. Documents also will convert it to HTML and can be used as the basis for a Web site.

For full Web authoring capability, you need another program, which comes bundled with the ClarisWorks Office CD—Claris HomePage Lite. The Lite version of Claris' HTML editor is the same as the regular version, except it won't make Web pages with frames nor will it edit HTML commands directly. But for Web authoring newcomers, it's not a bad idea to be shielded from the fuss of messing with document coding. Just click here, pull a menu there, and—zoom—what you write is ready to publish on the Web. The program also offers built-in tools to upload a finished product directly to an Internet service provider.



**TO MAKE THE MOST of ClarisWorks Office's Internet features, you must use a separate (but bundled) program, Claris HomePage Lite.**



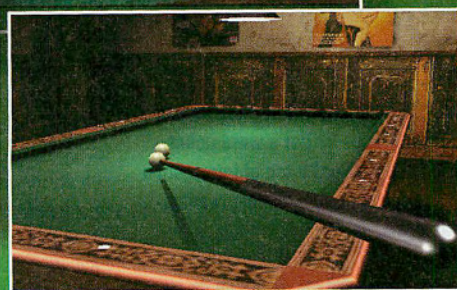
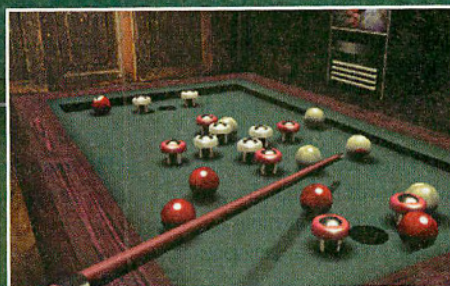
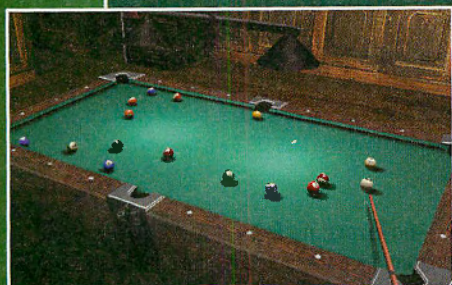
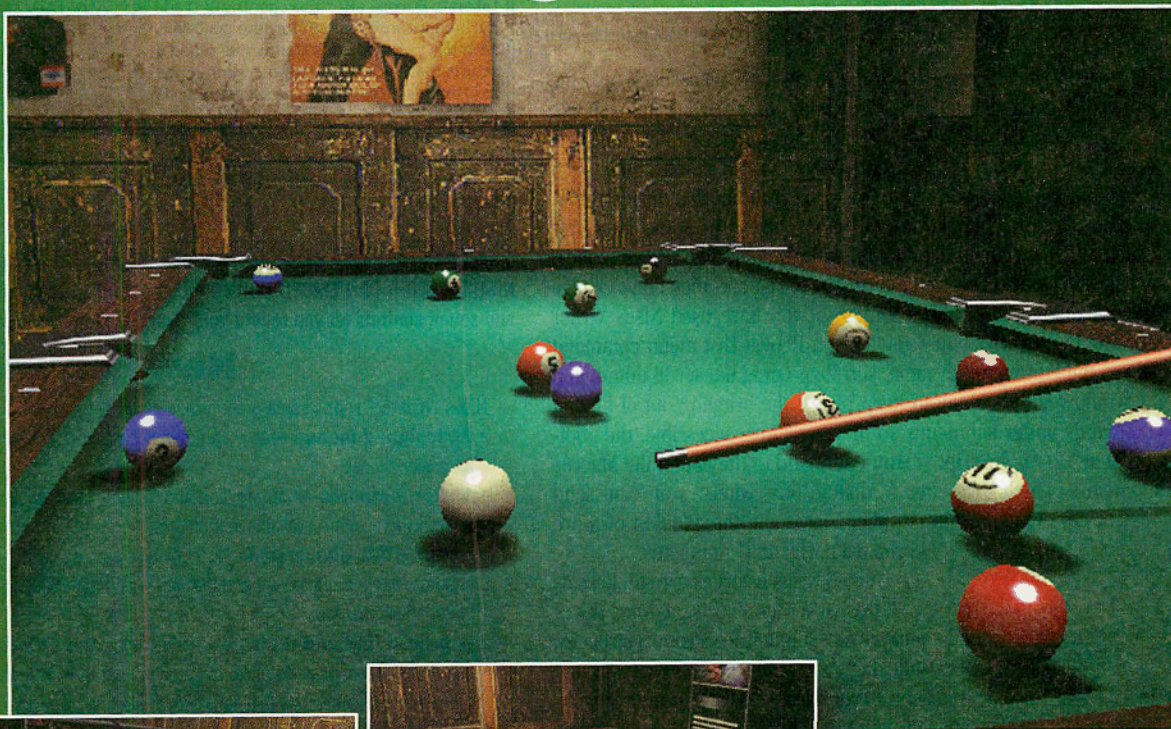
**GOOD NEWS:** Word processor, spreadsheet, and database for \$99. Speedy performance (mostly).

**BAD NEWS:** Version 5.0 is short on new features, with the exception of expanded Internet support.



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# reviews

## Nisus Writer 5.1

**COMPANY:** Nisus Software

**CONTACT:** 800-890-3030 or 619-481-1477, <http://www.nisus.com>

**PRICE:** \$149.99 (SRP), \$89 upgrade

**REQUIREMENTS:** 68020 or faster, System 7 or later, 5MB of RAM recommended

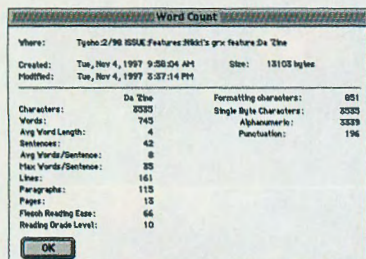
**N**isus Writer is one of two alternatives to Microsoft Word, the other being ClarisWorks. But where ClarisWorks takes a simple and lean approach, Nisus Writer offers a rich set of features perfect for power writers—those who work with long manuscripts (such as books), and those who write in languages other than English.

Nisus Writer's bump to version 5.1 brings in some nifty new features (Nisus claims that more than 90 changes have been made), but these new features aren't earth-shattering and they don't change the fundamental application for those who have used Nisus Writer 5.0. The best of what's new includes: a Repeat Last menu command item in the Edit menu, dynamic scrolling (drag the scroll thumb and the window scrolls along to keep pace), the bringing out of hidden commands under submenus so they are more accessible, the addition of a "Do AppleScript" menu command to the end of the Macros submenu (which presents a dialog box where you can send AppleScript events to other applications), and the addition of more keyboard navigation commands.

The old Nisus favorites are still here as well. Nisus Writer excels at long documents with support for cross-references, indexing, and table of contents. Anyone who's ever tried to create an index manually will know how valuable this particular tool is. Nisus Writer also allows users to conduct powerful searches (pattern-based GREP searches which let you search not only for individual words but complex patterns of words), make noncontiguous text selections, and use a variety of languages and text formats.

One feature that any word processor needs these days—except Microsoft Word—is the ability to translate Microsoft Word documents seamlessly. Like it or not, the world uses Word, so a word processor better translate these documents well. Nisus Writer uses XTND translators to do this, but they don't always work. A better solution is to use the MacLinkPlus translators that come with Mac OS 8. Unfortunately, the XTND and MacLinkPlus translators don't like each other, so you'll have to disable the XTND translators to make this work properly. Once done, just drag a Word document onto the Nisus Writer icon, and MacLinkPlus will handle the translation before Nisus Writer launches.

Other than that, Nisus Writer 5.1

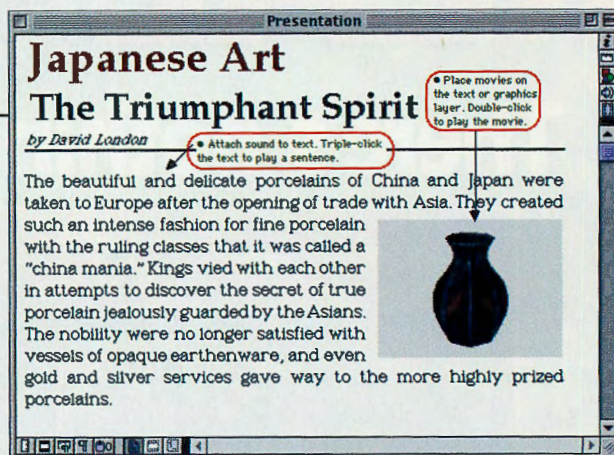


**NO PALTRY COLLECTION** of three or four numbers for Nisus Writer's word count feature. Here, you get a ton of information about your document, including reading-level analysis.

### Linguistic Limbo

Nisus Writer is great with languages other than English, making it a popular choice for multilingual and international Mac users. Here is a sampling of the writing systems that Nisus Writer handles (if the appropriate Apple language kit is also present):

- Arabic
- Chinese
- Cyrillic
- Hebrew
- Japanese
- Korean
- Persian



**NISUS WRITER CAN EMBED SOUND FILES** or movies inside documents, and sound controls let you record your own sound annotations.

### New Features

Nisus Writer 5.1 sports some great new features. Here's a partial list:

- **Redesigned menus**—Many commands have been brought to menus for easier access.
- **Better footnotes**—Indexing, find and replace, marking, and cross-referencing now are available in footnotes.
- **Better HTML conversion**—Nisus Writer's save as HTML function now supports background colors and the application has HTML tool bars and better HTML macros.
- **Improved find and replace**—The find and replace interface is simpler and it allows users to make more complex searches. Users also can make summary searches that list where the search expression occurs in the document.
- **WYSIWYG font menu**—The Font menu now displays its font list in the font which is listed. New fonts are added to the menu on the fly.
- **Platinum appearance**—Nisus Writer takes advantage of the Appearance Manager to fit in with Mac OS 8's grayscale look.

performs flawlessly—no errors, no freezes, and no glitches during our testing. The program operates in a nice, small memory footprint (only 3MB on 68K Macs and 5MB on Power Macs), and the application itself takes up 4MB of hard drive space—all quite comparable to Word. The big difference here, though, is that Nisus Writer doesn't choke the System Folder with a bunch of Extensions and Shared Libraries, and it doesn't break if you do something rash—say, rename its folder.

For those living in a Microsoft-free zone (or attempting to), who need a powerful word processor, Nisus Writer is a great choice. It combines power and elegance, and its interface, while a little daunting in its flexibility and potential complexity at first, quickly becomes transparent. While there aren't a lot of "gosh, wow" additions to Nisus Writer, what's here is powerful and functional. —David Reynolds

**GOOD NEWS:** Highly capable word processor. Excels at long documents. Powerful macros. Flexible, customizable interface.

Advanced text formatting controls.

**BAD NEWS:** Word 6 translation is still a little clunky. No WYSIWYG columns (available only in layout mode).





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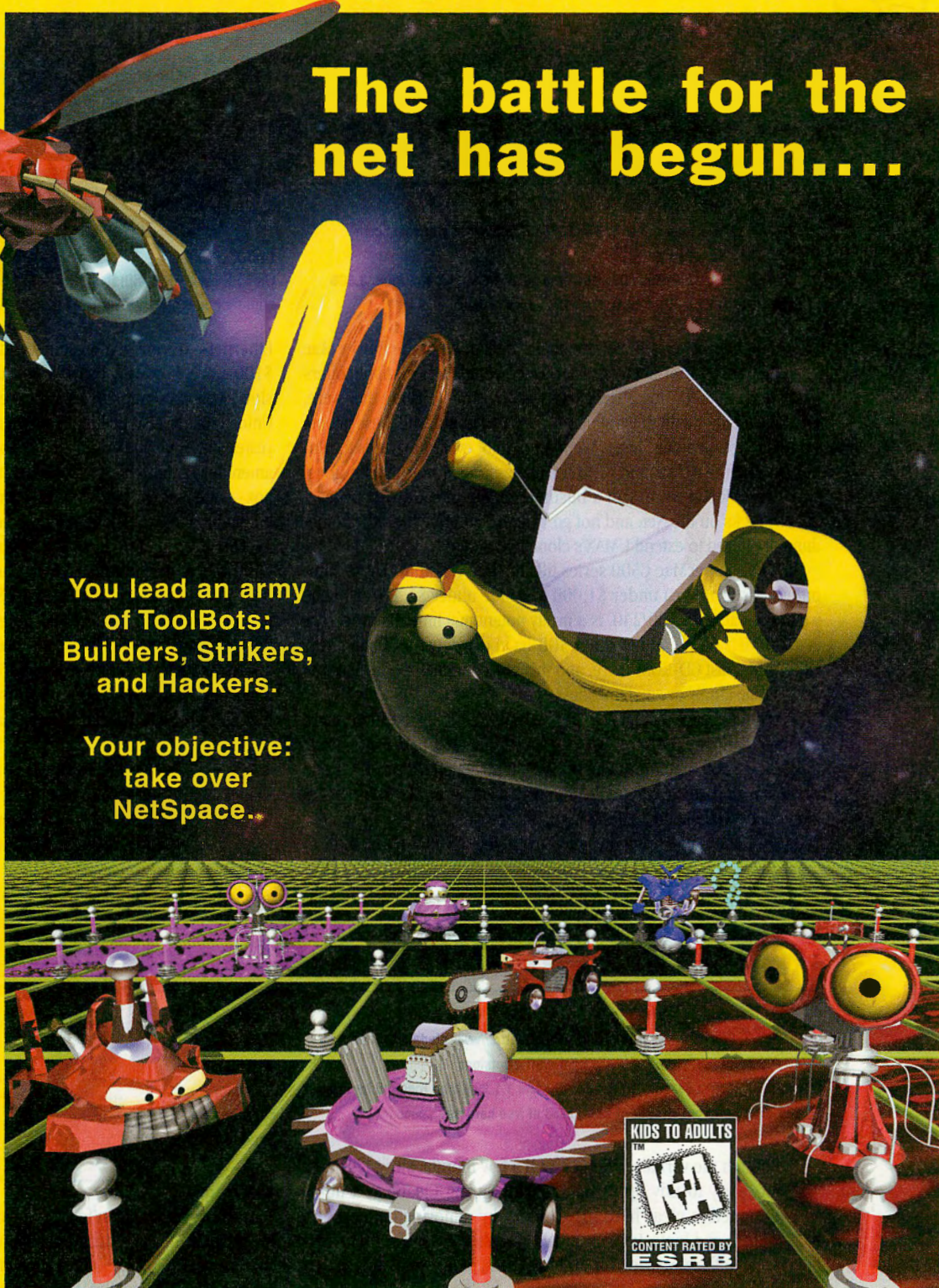
NOVEMBER 1997  
**Macworld** STAR  
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# reviews

## SuperMac C500/240

**COMPANY:** UMAX Computer

**CONTACT:** 800-232-8629 or 510-226-6886, <http://www.supermac.com>

**PRICE:** \$1,295 (street)

**REQUIREMENTS:** 240MHz 603e processor, Mac OS 8, 24MB of RAM, 3.3GB hard drive, 24X CD-ROM drive, two PCI expansion bays



### UMAX TAKES

**ON THE LOW END** with this compact, inexpensive, no-frills machine.

Apple executives squirmed during the launch of the Power Mac G3s as reporter after reporter asked what the heck Apple offers in the \$1,000 range. The execs were frustrated. There they were, introducing the world's fastest desktop for two grand, and these people wanted more (actually, less). Well, Apple, not everyone needs to render QuickTime videos and produce professional photo illustrations. Many of us just want to run a business, equip our kids for college, check stocks on the Net, and not go broke. But Apple did offer something. It offered to extend UMAX's clone license.

UMAX's SuperMac C500 series fills the low-end void. These computers cost from just under \$1,000 to a little under \$1,400. The one we looked at, the C500/240, is a pretty potent machine. Its processor is a 240MHz 603e. Add to it a 3.3GB hard drive, two PCI bays, Mac OS 8, and a fast CD-ROM drive, and this guy computes the heck out of the average family or small business.

Norton Utilities' System Info put the C500/240's speed somewhere between that of a Power Mac 7600/120 and that of a Power Mac 9600/200 (both machines run on the slightly beefier PowerPC 604e processor). Working with Adobe Photoshop and large ClarisWorks files likewise proved that the C500 is by no means sluggish.

About the only thing missing from the C500/240 is built-in

Ethernet—a standard these days. It's offered in the C500e/240 for \$100 more, however, and, because the standard C500 offers two PCI slots, you can pop in an Ethernet card later if you need one. Unfortunately, also lacking from this low-end Mac is the bundling of yesteryear. A word processor, tax software, a game, and a few other amenities could really help out the newly Macintoshed. The desktop box—one of the cutest around—comes with a keyboard and mouse, but no monitor, speakers, or other treats to make a whole package.

Our biggest complaint is that upon plug-in, all we got from the C500 was a question mark. Both the hard drive and the floppy had become unseated from the internal SCSI chain. We fixed this in minutes, but to a new or unsure Mac buyer, a problem of this nature would be very disturbing. This probably was an isolated occurrence (we've always had good experiences with UMAX machines in the past), but make sure your local computer store has a return policy before you buy. This problem aside, the C500 is a great offering. —Robert Capps



**GOOD NEWS:** A new Mac for a grand. Sleek case design.

PCI expansion capability.

**BAD NEWS:** No built-in Ethernet. Much slower than Power Mac G3s. Our hard drive came unseated.

## Spring Cleaning 2.0

**COMPANY:** Aladdin Systems

**CONTACT:** 800-480-4011 or 408-761-6200, <http://www.aladdinsys.com>

**PRICE:** \$120 (SRP), free upgrade from earlier versions

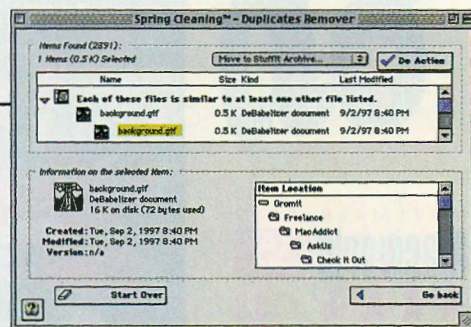
**REQUIREMENTS:** System 7.0 or later (System 7.1.2 or later required for drag-and-drop features), 1.5MB of RAM, 2MB of free hard disk space

Although the vernal equinox is still a few months away, it's never too early to tidy up your Mac with Spring Cleaning, a utility designed to clear hard drive clutter by removing unnecessary files, folders, and fonts. Improvements in version 2.0 include a revised interface, StuffIt integration for archiving files, plus several new search types and actions.

The revised interface remains a bit confusing, but for the most part, Spring Cleaning 2.0 works like the previous version. Just specify what you're searching for (such as broken aliases, duplicate files, "fat" applications, fonts, lost documents, or preference files), then designate which drives to search. Files matching the criteria appear in a scrolling list in which you assign actions to them individually or in batches.

Several steps have been taken to make Spring Cleaning 2.0 safer than the previous version. The user's guide is greatly improved with helpful tutorials and detailed explanations, and the search results

**SPRING CLEANING'S**  
**Duplicates**  
**Remover**  
searches for  
unnneeded files.



window now dis-

plays more information for making intelligent file management decisions. Finally, the new actions that move selected files to StuffIt archives, the Trash, or Storage folders offer much-needed safeguards against accidentally deleting files. Still, you need to be cautious when working with some searches, such as Orphaned Prefs Remover, which sometimes incorrectly identify files as unnneeded. Spring Cleaning 2.0 is overkill for casual users, but it's a great tool for anal-retentive Mac addicts running out of room on their hard drives. —Owen W. Linzmayer



**GOOD NEWS:** Free upgrade for current users. Improved documentation. More safeguards. Useful new searches and actions.

**BAD NEWS:** Interface remains confusing. Some searches return questionable results.



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COURSE LIBRARY I

COURSE LIBRARY II

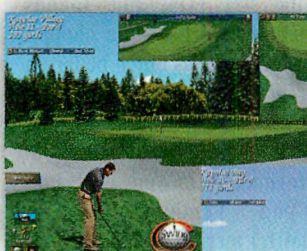
COURSE LIBRARY III

COURSE LIBRARY IV

DAVIS LOVE III

KAPALUA

MAUNA KEA



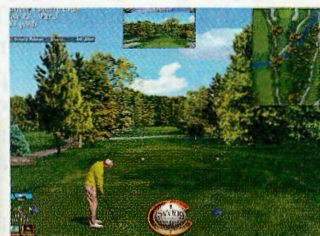
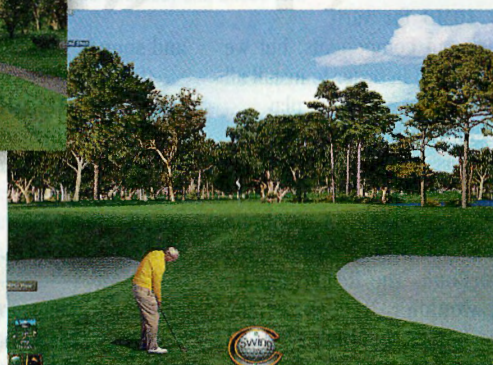
BANFF SPRINGS

HARBOUR TOWN

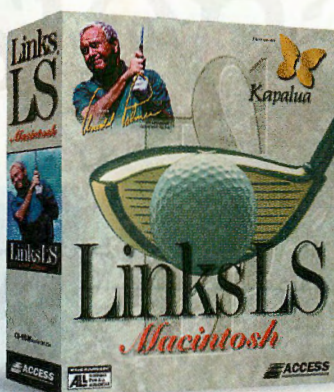
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Actual screen captures using Links LS Macintosh



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# reviews

## RealPC

**COMPANY:** Insignia Solutions

**CONTACT:** 800-848-7677, <http://www.insignia.com>

**PRICE:** \$79 (street)

**REQUIREMENTS:** PowerPC, System 7.1.2 or later, 16MB of RAM (24MB recommended), 50MB of free hard disk space, CD-ROM drive

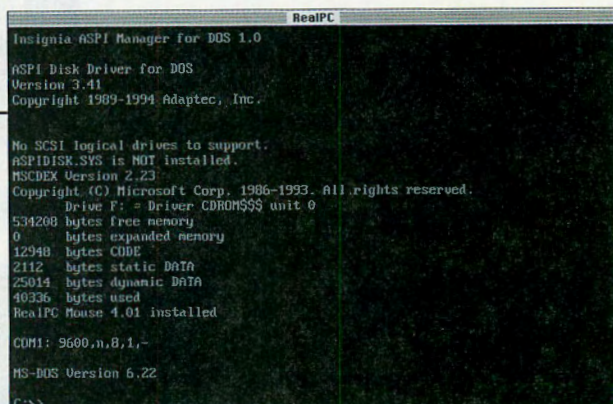
When visiting a computer store, it's hard not to start lusting after all those DOS and Windows games. We love our Macs, but come on. DOS is a premier gaming platform, and we *need* those games. There are at least two possible solutions to this dilemma. One option is to invest \$400 to \$800 in a DOS expansion card. The other is to simply plunk down 80 bucks and take home a copy of RealPC from Insignia Solutions.

RealPC is a scaled-down version of Insignia's SoftWindows with only DOS installed and optimized for games. It was designed to emulate a real Intel Pentium with MMX. RealPC supports joysticks and Sound Blaster sound cards for optimum gaming compatibility, and it recognizes all the Mac's peripheral devices. Plug in your microphone, mouse (or joystick), CD-ROM drive, SCSI drives, printer, and modem with little fuss. You also can easily buy a copy of Windows 3.1 or Windows 95 and install it on top of DOS.

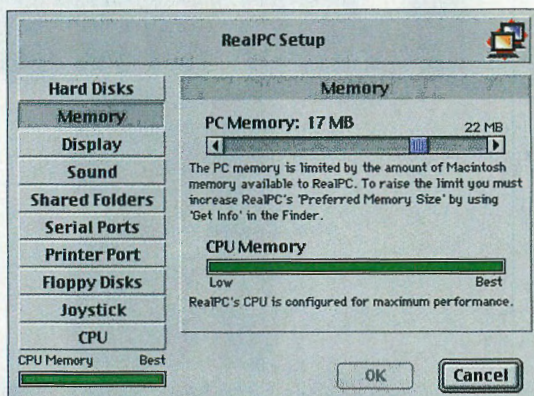
To put RealPC through its paces, we installed the program on both a PowerBook 3400c/200 (to check its ability to work on a slow hard drive) and a Power Computing PowerTower Pro fitted with a Newer Technology MAXpower Pro CPU daughtercard (250MHz PowerPC 750 processor). During installation, RealPC creates a virtual DOS drive on part of your hard drive. You can change the size of this virtual DOS drive depending on how much of your hard disk you want dedicated to DOS programs. The minimum space

required is 40MB, plus 10MB for various system components, but we used 150MB in order to install all the games we wanted to play.

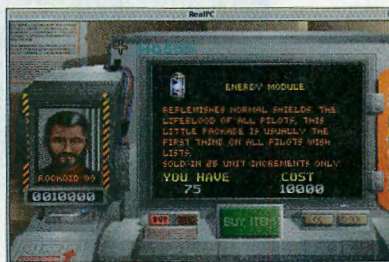
Setup on the desktop computer was easy, requiring barely a glance at the supplied QuickStart guide. A problem arose, however, with the PowerBook. The RealPC emulator wouldn't recognize the PowerBook's internal CD-ROM drive, and the manual offered little help in the matter. We finally tricked RealPC into recognizing



**YUCK! EMULATE A DOS COMPUTER on your Mac with RealPC.**



**EASY SETUP BOX helps get RealPC up and running in minutes.**



**PLAY YOUR FAVORITE DOS GAMES, complete with sound and (sometimes cheesy) color.**

the drive by specifying it as a shared folder in the program's Preferences dialog box. After that, everything went according to plan. To help get you started, Insignia bundles a CD, called Best of 3D Action Games. The CD contains 15 shareware versions of slightly dated DOS action titles such as Doom, Rise of the Triad, and Dark Forces.

There's no getting around the need for beefy processing power and RAM to get the equivalent of even an old '486 PC on a Mac. Our PowerBook had 48MB of RAM, and RealPC in its standard setup used 25MB of it. Video display was OK, but sounds sometimes were a little choppy. The situation was much better on our high-end Mac OS clone, where RealPC got 35MB of RAM and a faster processor, too. Performance moved well into low-end Pentium (75 to 100MHz) territory. Video display was quick, action was first class,

and sounds were smooth and clear.

If you have a fast enough Mac (one with a 132MHz 604e or faster, or a 180MHz 603e or faster) you will be pleased with RealPC's performance. Those with more humble Macs, or those who want to run beefy programs may be disappointed, however. At the very least, RealPC might help relieve DOS envy when gazing on all those software titles displayed at your local computer stores. —Gene Steinberg



**GOOD NEWS:** Workable performance. Plays DOS games with good compatibility. Easy to add Windows 95.

**BAD NEWS:** Needs a really fast Mac to achieve usable speed. Generally won't match a Wintel box. Some setup problems with a PowerBook's internal CD-ROM drive.

## RealPC Shortcuts

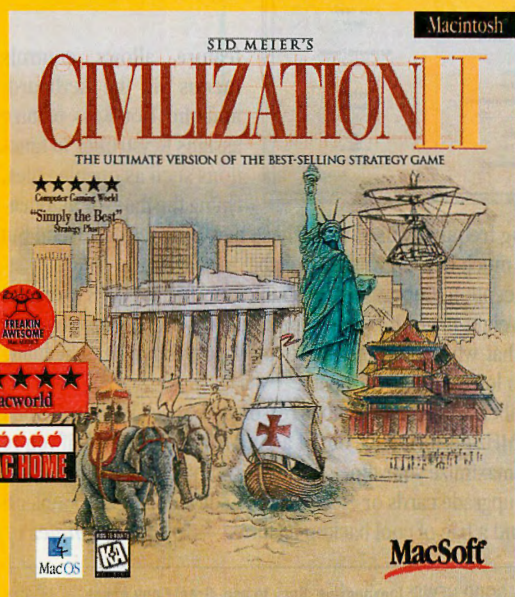
**Command-M**—Gives you the feeling of a real PC mouse (type it again to revert to the Mac mouse).

**Command-B**—Centers the DOS screen on your Mac's monitor (with a black border around it).

**The equal sign (=) on the numeric keypad, or Command-R**—Emulates the PC's right mouse button (similar to the Contextual menus in Mac OS 8).



# Think Hard.



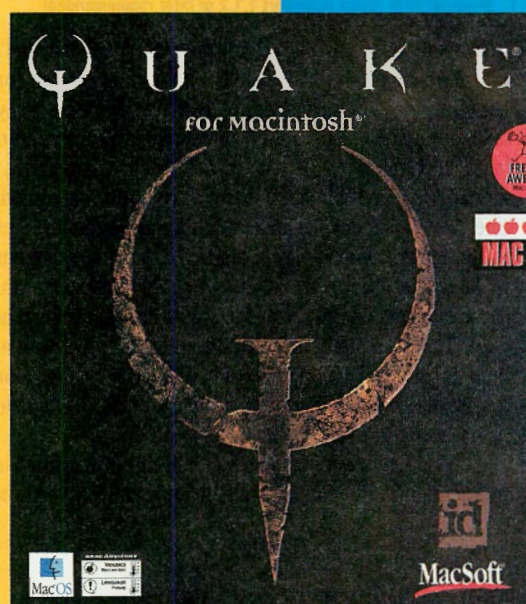
Build an empire to stand the test of time in this strategy game that was called "perhaps the best game on the planet" by Strategy Plus magazine.



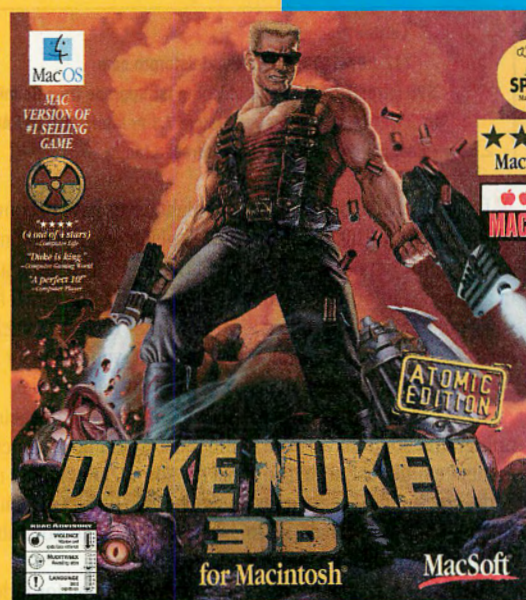
Forge an empire to span a universe in this turn-based strategy game. Explore, colonize, conquer, trade and discover new technologies to achieve galactic supremacy.

# Play Hard.

From the creators of Doom comes the most intense, technologically advanced 3D experience ever captured on CD-ROM.



This highly-rated, #1-selling 3D shooter offers ground-breaking realism, endless explosive action and a humorous attitude.



Quake® ©1996, 1997 Id Software, Inc. All Rights Reserved. Duke Nukem™3D ©1996, 1997 3D Realms Entertainment. Master of Orion™ II: Battle at Antares™ ©1996, 1997 MicroProse Software, Inc. All Rights Reserved. Civilization® II ©1996, 1997 MicroProse Software, Inc. All Rights Reserved.

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# reviews

## Speed Doubler 8

**COMPANY:** Connectix

**CONTACT:** 800-950-5880 or 650-571-5100, <http://www.connectix.com>

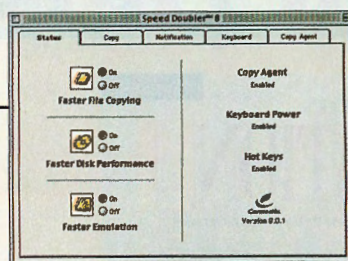
**PRICE:** \$99 (SRP), \$25 rebate to owners of previous versions

**REQUIREMENTS:** 68030 or faster processor, System 7.5.5 or later, 8MB of physical RAM (Open Transport 1.1.2 or later recommended)

**S**peed Doubler is steroids for the Mac. It's cheap, and it pumps up functions with little work. Because other options for increasing your Mac's performance are limited to slimming the System Folder (a lot of work for a small gain) or running expensive add-on hardware (such as clock-chip accelerators, network interface cards, and processor cards), Speed Doubler has been a very appealing solution for some time. Now Connectix has updated this accelerator, bringing improved performance, compatibility to Mac OS 8, and a few new surprises.

Speed Doubler 8 basically is a set of six system enhancements. These boosters work together to speed the Mac without adding hardware. The most notable increases are in file copying and deleting (both locally and over a network), disk performance (for quick data access, especially for removable drives), and 68K emulation (for non-PowerPC-native code).

Several features new to Speed Doubler in version 8 aim to make interacting with the Mac more efficient as well. The Keyboard Power



**SPEED UP YOUR SYSTEM**  
without expensive add-ons.

feature allows controls menus via the keyboard, and the Hot Keys feature assigns keystrokes to functions such as opening files, typing the date, or automati-

cally typing frequently used text. These new features are useful but don't offer much beyond what is available in shareware.

One exception, Copy Agent (available only to Mac OS 8 users), is worth its weight in gold. In four simple steps, you set Copy Agent to schedule what, when, how, and where you want to copy data. Scheduling backups no longer has to be a pain.

Remember to keep expectations reasonable. Speed Doubler 8 won't wring 250MHz performance out of a 100MHz machine. But if you're looking to maximize your time on the Mac without shelling out lots of money for upgrade cards or clock-chipping devices, Speed Doubler 8 is all that and a bag of cool backup features. —*Tony A. Bojorquez*



**GOOD NEWS:** Inexpensive. Easy to use. Great Copy Agent.

**Stable performance.**

**BAD NEWS:** Improved performance is not as noticeable with Mac OS 8.

## Reunion 5

**COMPANY:** Leister Productions

**CONTACT:** 717-697-1378, <http://www.leisterpro.com>

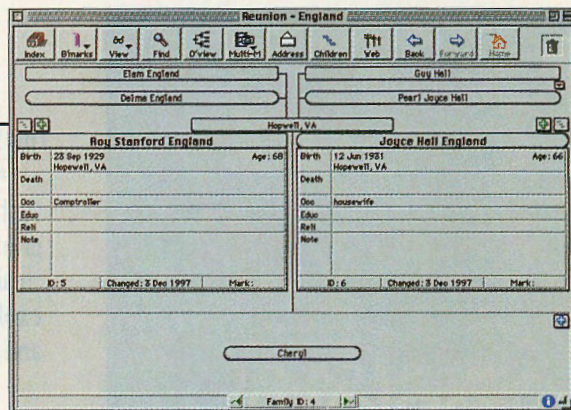
**PRICE:** \$95 (street), \$39.95 plus shipping for upgrade from Reunion 4

**REQUIREMENTS:** 68020 or faster; System 7.1 or later; 4MB of RAM; QuickTime 2.5 for video, pictures, and HTML features; a family

**I**f it hadn't been for Reunion, we might never have become interested in genealogy. This small, fast, self-explanatory program makes tracking family data easy—even addictive. Start a card on a person, fill in all known information, then simply start another card for that person's mother, father, brother, sister, or other relative. Switching among cards to add or edit information is easy, and you can print a huge variety of reports and charts that show links between people.

This new version brings Reunion up to modern times in both technology and sociology. Some of the most welcome technical improvements include just-added support for sound, QuickTime movies, and additional image file formats such as PICT, JPEG, GIF, and MacPaint. It's great not only to have all the statistics on Uncle Bob but also to see and hear him while he burns the family barbecue.

Reunion 5 also supports drag-and-drop editing for individuals and families, a larger notes field (it now holds about 10,000 words—a welcome tweak for us long-winded types), and *sensitivity braces* for text that you want to omit from reports (there's always some relative you really can't stand). And Reunion has grown Web savvy. It can output data in HTML for posting on the Web and includes a field for entering relatives' email addresses.



**A SELF-EXPLANATORY INTERFACE, excellent reporting, and a 10,000-word notes field help make Reunion a perfect genealogy program.**

Finally, Reunion accepts more family configurations. It now allows for same-sex couples and even lets you mark a person as being of "unknown sex." You can enter more children per couple (up to 50) and more spouses per person (also up to 50—poor sap), and there are twice as many ways to categorize children, including such oddities as family pet and alien abductee.

If you're a casual family tracker, Reunion's simple interface and wealth of features will suck you in. If you're a hard-core genealogist, you'll be delighted by the amount of detail Reunion allows and by the great charting and reporting capabilities. —*Cheryl England*



**GOOD NEWS:** Easy to use. Lets you add notes, sounds, and images to records. Supports all types of family situations. Great reports.

**BAD NEWS:** Won't research your family history for you.



**FIND A DEMO**  
of Reunion 5  
on The Disc.



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You are **Maverick**-  
and you've got  
your orders on your  
mind, **Commander  
Hondo**  
on your back and  
**MiGs** on your tail.  
so fuel up.  
Strap yourself in.  
And let 'em know your **bark**  
is nothing...  
next to your **bite**.



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# reviews

reviews

## Fallout

**COMPANY:** MacPlay

**CONTACT:** 800-4MACPLAY, <http://www.macplay.com>

**PRICE:** \$49.95 (street)

**REQUIREMENTS:** 80MHz or faster Power Mac, System 7.5 or later, 16MB of RAM (with virtual memory turned off), 95MB of free hard disk space, 256 colors at 640 x 480 or better, 2X or faster CD-ROM drive

**Y**ou squint through the blinding sunlight to get a better view of the makeshift encampment of tents and half-wrecked buildings. There are at least a dozen rough men armed to the teeth stationed in numerous locations around the perimeter, plus more near the central building. Your mind wanders back to the words of the overseer: The 200 people back in the vault will die unless you find a new water chip. This camp is as good a place as any to start looking.

Such is one situation in *Fallout*. The setting is a postapocalyptic alternate reality where the world's superpowers simultaneously pushed the Red Button. Many of the survivors live in underground, self-sufficient bomb shelters called vaults. Unfortunately, your vault's water chip—the only source of water—is defective. Find a new chip and get water, or the vault dwellers will die in a few months.

Designing your own character is one of *Fallout*'s best aspects. Using a stock character is an option but not nearly as fun. The character system is similar to the GURPS (Generic Universal Role Playing System) model created by Steve Jackson of Steve Jackson Games. The development team was smart to use a simplified version of this already proven system, which allows for unlimited character variation. The game uses a point system to "buy" skills for each character. For instance, if a character starts life as a big, burly fighter,



**LIKE WE SAID, COMBAT** is lethal. You just took a direct-hit shotgun blast, and you're about to go down for the count.



**USE THE CHARACTER SCREEN** to get detailed info about all your skills, attributes, current state of health, level, karma, and things you've killed.

he can later learn to pick locks. Just invest points in a skill (there are 18) as you get them (new points are gained whenever you go up a level).

The *Fallout* world has numerous paths of progression, which hinge on decisions made during the game. Talking to people and saying the right thing at the right time are important parts of the game. A character's karma attribute determines how others in the game react to her or him. A character who commits evil acts, such as gunning down innocent civilians, suffers a drop in karma and is perceived as evil; vice versa for acts of kindness.

Times to use force come up more or less often depending on the type of character played. The combat system takes into account all of a character's attributes to resolve combat actions. A particularly nice (or nasty) feature is the ability to target a specific part of an opponent's body in an attempt to maim or kill him in a specific way.

You acquire myriad weapons and other useful objects by bartering or buying them outright in shops or from other people. Bottle caps are the accepted form of currency in the postapocalyptic era.

Unfortunately, *Fallout* is a direct port from the PC. It lacks anything Mac-like, but it still works because the interface was well designed from the beginning. Another small annoyance is that the game is very slow if you don't perform at least the standard install of about 95MB. A full install reaches 500MB.

In these days of 3D, first-person, multiplayer, shoot-everything-and-ask-questions-later gaming, it's nice to know a solid role-playing game can still be put together. *Fallout* is more than that. MacPlay combines a masterful story, a robust role-playing system, and an enormous and superbly rendered milieu to explore. —Wade Albright

## Keys and Caveats

**BEWARE COMBAT:** Combat in *Fallout*, as in real life, is lethal. Be prepared with stimpacks, armor, and ammunition before getting into battles.

**BE A GOOD GUY:** Good, rather than evil, deeds produce more favorable reactions and help from people.

**AIM FOR CRITICAL HITS:** In combat, execute a targeted attack to better your chances of a critical hit.

**SAVE AND STEAL:** Steal from people you meet right after you save the game. If you get caught, restore the game and try again.

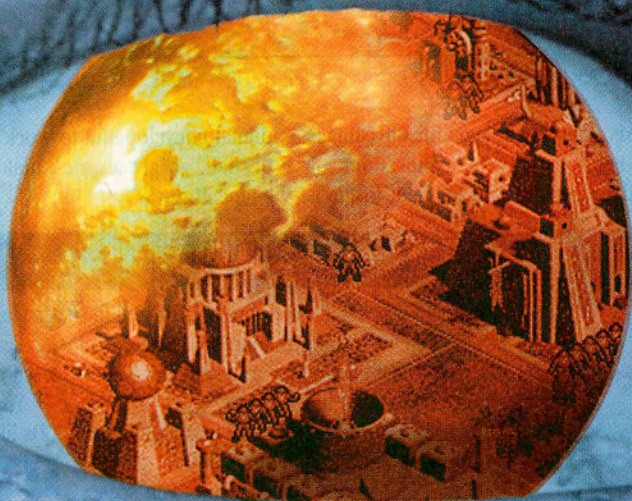


**GOOD NEWS:** Robust character system. Endless variations in role playing. Huge world to explore.

**BAD NEWS:** Interface is usable but obviously PC rooted. Game runs slowly without at least a 95MB install.

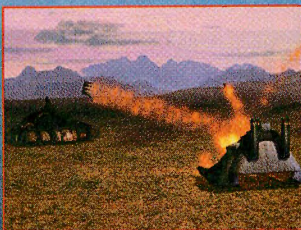


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"Deep, rich...one of the best  
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in years. Editor's Choice"

-PC Gamer

"Sim City on Steroids"

-Computer Life



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refined technology give this game a personality all its own."

-Computer Gaming World

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# cd-roms

reviews

FIELD TRIP TO THE RAINFOREST ■ STAR TREK: CAPTAIN'S CHAIR ■ KYOTO GARDENS ■ GROLIER ENCYCLOPEDIA ■ COSMOPOLITAN MAKEOVER

**A**lready sick of the CD-ROMs grandma got you for Christmas? Chin up, little soldier! February brings explorations of Zen gardens, a rain forest, and a starship! And let's not forget a

digital encyclopedia to work your noggin. Should all of these endeavors fail, go get a quick makeover to whisk away those winter blues. —Joe Mahr

## The Digital Field Trip to the Rainforest

**COMPANY:** Digital Frog International

**CONTACT:** 800-621-FROG or 519-766-1097, <http://www.digitalfrog.com>

**PRICE:** \$45 (street)

**REQUIREMENTS:** 68030 or faster,

System 7.0 or later, 5MB of RAM, CD-ROM drive, 256-color monitor or better



**Y**ou won't need bug spray for this QuickTime VR tour of a rain forest that's not only picturesque but educational and (gulp) fun.

Traipse through 28 spots in a Colombian rain forest, including the tops of trees and the inside of a cave. Pan scenes at each point to find hidden animals and signs linking you to separate screens, some draped with videos and others coated with pictures.

Digital Frog leaps over other disc makers by packing every screen with interactive gizmos: movies, quizzes, impromptu puzzles, and the like. A clean, crisp interface ensures that everybody from kids to grandfolks can find their way through the tour and dozens of spin-off educational sections.

Gander at maps of former and current rain forests, study the human toll on those areas, or learn more about the animals that live in them.

You'll be left hoping places like these—and CDs like this—never become extinct.

### The Last Words:

**Mark:** Like a kid in a candy store, I wanted to click on everything—a practice that yielded special treats such as a high-jumping armadillo and hidden video snippets. Even the standard-issue QuickTime VR panoramas have extra gimmicks.

**Judy:** At last! An environmental CD that rains all the wonders of the world! An easily navigable interface, clearly marked directions, pop-down menu information, CD-map notation, and swift and intelligent links to related topics make this disc a survivor. Darwin, where are you?

**Joe:** It's a rare educational CD that keeps me clicking away for hours. But there's nothing frustrating about this disc. It's quick, sharp, and smart. About the only gripe is that I wish it had more tours.



RAIN FOREST CD REIGNS over the tinkle of other eco-CDs.

## Star Trek: Captain's Chair

**COMPANY:** Simon & Schuster Interactive

**CONTACT:** 800-910-0099 or 303-739-4020, <http://www.ssinteractive.com>

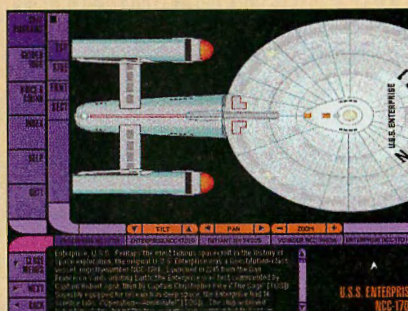
**PRICE:** \$39.95 (street)

**REQUIREMENTS:** PowerPC, System 7.5 or later, 16MB of RAM, 4X CD-ROM drive, 640-x-480-pixel monitor with 256 colors or better



tour narrated by the actors, er... crew.

But the virtual reality can be S-L-O-W. The scrolling text boxes don't exactly match *Enterprise* technology. And you can't shoot any Klingons—just look at flashing buttons.



TAKE THE "COMM"—if you think it's not a con.

**A**lthough Capt. Kirk might have saluted this disc's realization of its meager goals, it's far more likely that he would have found its slow multimedia a shameless gimmick from the galaxy Schmuck.

Not that walking around the bridges of five starships isn't spiffy. Scrutinize each wacky gadget, with complementary animation. Anyone new to the Starfleet can take a guided

### The Last Words:

**Mark:** This QuickTime VR tour accomplished its modest goals. But I'm not sure how much mileage I get out of prowling the deserted bridges of five *Trek* vessels. More background text would flesh it out nicely.

**Judy:** Nifty to check out the ships, the high-tech equipment, and Capt. Picard's Australian fish in a tank, though the resolution could have been better. I'm interested, so I was patient. But patience doesn't buy respect, nor does it replace lack of ambition.

**Joe:** Aside from it all seeming a little silly, the disc doesn't go past the standard walk-around-and-look-at-things motif, and it doesn't excel even at that.



FIND A DEMO of Cosmopolitan Virtual Makeover on The Disc.



## Kyoto Gardens: A Virtual Stroll Through Zen Landscapes

**COMPANY:** Lunaflora  
**CONTACT:** 714-970-7412,  
<http://www.lunaflora.com>  
**PRICE:** \$49.95 (SRP)  
**REQUIREMENTS:** PowerPC, System  
 7.5 or later, 16MB of RAM, 4X CD-ROM drive, 32,000-  
 color display or better



Let your mind pleasantly wander with a QuickTime VR stroll through 24 famed gardens near Kyoto, Japan. The headache won't come until later, when you trudge through essays on Zen Buddhism.

No allergy pills or airfare needed for this snappy tour of the Zeniest of Zen gardens. A slide projector brings the Kyoto gardens to you, if only via so-so navigation.

If you did fly there, you'd have plenty to

read on the plane. This CD stuffs 133 pages of text onto a nearly multimedia-free portion of the disc. Apparently this text purge then left the authors too tuckered to write much disc documentation.



NICE VIEWS—but weeds of text ruin rest of disc.

## The Last Words:

**Mark:** The disc doesn't go to any great lengths to convince you it's a particularly thrilling and profound subject. If you're interested, you'll probably dig this CD; if, like me, you aren't already a Zen garden buff, then it will do nothing to win you over.

**Judy:** Stunning gardens. The QuickTime quality is good and comprehensive, but the navigation and documentation stink. Four very thorough essays on Japanese gardens are text-only page turners; whatever happened to the multimedia? Or voice-overs? Overall, this one is a letdown.

**Joe:** Unfortunately, I'm allergic to dry essays. I couldn't stop sneezing at the disc, despite its beautiful look at the gardens themselves.

## 1998 Grolier Multimedia Encyclopedia Deluxe 2-CD Edition

**COMPANY:** Grolier Interactive  
**CONTACT:** 800-217-1495 or 203-797-  
 3530, <http://www.gi.grolier.com>  
**PRICE:** \$59.99 (street)  
**REQUIREMENTS:** 68030 or faster,  
 System 7.1 or later, 5MB of RAM, 2X CD-ROM drive,  
 256-color monitor



This retooled Grolier boasts more multimedia and twice as many videos and photos, but only slightly enhanced articles. The big change in this version is the Online Knowledge Explorer, which allows you to hook up with Grolier's two online encyclopedias (Encyclopedia Americana, which is more scholarly, and The New Book of Knowledge, which is not so scholarly) and pregathered Web links.

This feature, complemented by smooth and easy navigation, stacks Grolier '98 higher than many in the encyclopedia crowd

for its price range. However, one of Grolier's other new gimmicks, computer-generated narration, brings it back down. Besides the narration's constant monotone voice, words continually are mispronounced ("skiing" is "sky-ing").

As in most other multimedia encyclopedias,

the short, often simplistic articles won't satisfy much of an intellectual appetite. Plus, there's always more need for movies and graphics.

## The Last Words:

**Mark:** A snazzy yet navigable interface and a smattering of multimedia makes for a pleasant and functional digital encyclopedia. All in all, a solid but not remarkable effort.

**Judy:** The voice-over sound is remedially computer-generated, and the text is simply scrolling, in many cases, squished into a little three-line text boxes. Card-top tabs make navigation easy, but the interactivity is limited, which, again, is frustrating.

**Joe:** Anybody can slather big topics like World War II with multimedia. What sets a disc apart is how many graphics and photos make it in for the little subjects. This disc didn't set itself apart from others in its genre.



MORE VIEWS AND SAME NEWS equals few boos—but no ballyhoos.

## Cosmopolitan Virtual Makeover

**COMPANY:** SegaSoft Networks  
**CONTACT:** 888-SegaSoft or 650-654-  
 2261, <http://www.virtualmakeover.com>  
**PRICE:** \$39.99 (SRP)  
**REQUIREMENTS:** 68040 or faster,  
 System 7.1 or later, 16MB of RAM (4.2MB of free RAM),  
 2X CD-ROM drive, monitor set to thousands of colors



Grab the gals and the virtual curlers for hours of makeover fun. The only problem? You'll be spending much of that time waiting for the disc to catch up.

With this disc, finding a new you isn't the gamble it used to be. Just scan your picture (or have the local photo hut put it on a disc), and let the revelry begin. Choose from 150 hair styles and the whole family of skin paints: lip-

stick, lip liner, blush, eyeshadow, cover-up, and eyebrow shaper. Add different colored contact lenses, to boot. Men: You can bring your blow-dryer, too—there are male hair types as well.

But cleaning up your mug on the computer could put wrinkles on your real face. Long, long loading times leave you fearing the computer has crashed. (Sometimes, it has.) And a mediocre navigation system will likely take the perkiness out of any future blond.



STUNNING CONCEPT can't make up for pasty application, particularly in Steve Jobs' case.

## The Last Words:

**Mark:** It's lots of fun in a paper cut-out doll kinda way. But I have to knock it down a notch for instability and poor responsiveness. It could be a fun diversion if they'd only fix the thing.

**Judy:** It left me wondering whether the system had crashed or was simply taking its sweet time. When it became clear it was bombing, no amount of cover-up could make me feel better.

**Joe:** It's a nifty idea that's long overdue. Unfortunately, the waits aren't. And the way-too-obvious plugs for Cover Girl left me with a not-so-fresh feeling.





# Kidz Stuff

**Brisbane Elementary School kids love looking at children's software. They just love it.**

## SPY Fox in Dry Cereal

**COMPANY:** Humongous Entertainment

**CONTACT:** 800-499-8386 or 425-486-9258,

<http://www.humongous.com>

**PRICE:** \$39.95 (street)

**REQUIREMENTS:** 25MHz 68040 or faster, System 7.0 or later, 8MB of RAM, 2X CD-ROM drive



**A** feta cheese sample is your only clue as you join secret agent SPY Fox in his bid to save the dairy industry and foil William the Kid's plot to saturate the market with goat's milk. Head to the Mobile Command Center to get guidance from Monkey Penny and load up on cool spy gadgets like spy putty, safe crack-

ers, and beef-flavored X-ray gum. You'll need all the gadgets you can get to ward off the villainous likes of Russian Blue and Hong Kong Doodle. If you think you've solved the case, try thinking again. The clues change every time you play.

**GOOD FOR GRADES:** 2 to 5

**LIKES:** "I liked that they had secret passages you could go into in the town." **■ Amanda**

"I liked the story, the pictures, and the games."

**■ Jonathon**

"I like the way they talk. I like how the game is really colorful." **■ Jolie**

"I liked how you could click on things and make them move, and I liked the plot." **■ Michelle**

**DISLIKES:** "I don't like how, if you don't have a PowerPC, it would take a long time to start up." **■ Bruno**

"I didn't like SPY Fox and his clothes." **■ Traci**

**SOUND ADVICE:** "Make it more simple." **■ Christine**

**FINAL REPORT:** James Bond, watch out!



## Meet the players...



**JUSTIN PEREZ, Age 10, Grade 5**  
**EXPERTISE:** Hair combing  
**PICK OF THE MONTH:** SPY Fox in Dry Cereal



**TRACI NOWAKOWSKI, Age 10, Grade 5**  
**EXPERTISE:** Surfing  
**PICK OF THE MONTH:** SPY Fox in Dry Cereal



**MICHELLE GOODWIN, Age 11, Grade 5**  
**EXPERTISE:** Bug shaving  
**PICK OF THE MONTH:** The Smelly Mystery



**BRUNO BOVO, Age 10, Grade 5**  
**EXPERTISE:** Dog shaving  
**PICK OF THE MONTH:** SPY Fox in Dry Cereal



**CHRISTINE SHULENBERGER, Age 10, Grade 5**  
**EXPERTISE:** Being a brat  
**PICK OF THE MONTH:** The Smelly Mystery



**JOLIE LAU, Age 11, Grade 5**  
**EXPERTISE:** Teasing her brother  
**PICK OF THE MONTH:** SPY Fox in Dry Cereal



**JONATHON BUTTON, Age 10, Grade 5**  
**EXPERTISE:** Skydiving  
**PICK OF THE MONTH:** SPY Fox in Dry Cereal



**AMANDA OLSON, Age 10, Grade 5**  
**EXPERTISE:** Weightlifting  
**PICK OF THE MONTH:** SPY Fox in Dry Cereal



INSPECTOR GADGET MEETS JAMES BOND meets Hong Kong Phooey meets the Captain Caveman meets the Pink Panther. And everyone gets along like thieves.







**"Without a doubt the top space-education title"**

— Videogame Advisor

**Introducing Connie & Bonnie's Birthday Blastoff.™ The latest sign of intelligent life.**

*Connie & Bonnie's Birthday Blastoff* is the first title in our Active Stories™ series of "animated books that make learning come alive."™ It's an interactive interstellar adventure offering a view of space second only to the front seat of the Discovery shuttle.

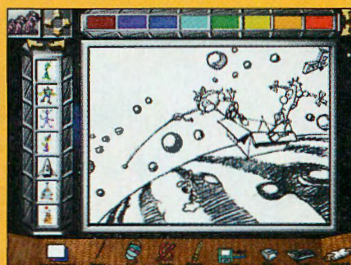
**A launch pad for learning.**

Every page provides new adventures and new things to learn. As Connie and Bonnie speed past Mars, kids discover why it's red, and how much they would weigh standing on its surface. Fun riddles then challenge your kids to apply their newfound knowledge.

And to encourage further exploration, each page suggests activities away from the computer, like using a flashlight and an apple to study eclipses.

**More fun than zero gravity.**

From connect-the-dots constellations to genuine NASA videos, we have every outer-space activity imaginable. And with our "learn as you play" philosophy, they all educate while they entertain. One small step by you will help your kids make a giant leap in learning. Call 1-888-201-5337 today to try the software, risk-free for 30 days. If you're not completely satisfied, return it and you'll owe nothing. Or keep it for \$29.95 plus \$4.95 shipping and handling.†



*Kids can paint using the fun stamps, colors and backgrounds provided.*



**THE SEARCH FOR INTELLIGENT LIFE BEGINS AT HOME.™**

**Try it risk free for 30 days  
Call 1-888-201-5337**



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Offer ends  
April 30, 1998



## Big Thinkers 1st Grade

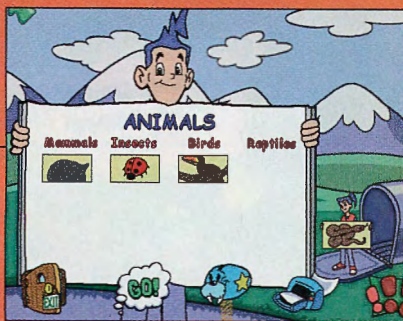
**COMPANY:** Humongous Entertainment

**CONTACT:** 800-499-8386 or 425-486-9258,

<http://www.humongous.com>

**PRICE:** \$19.95 (street)

**REQUIREMENTS:** 25MHz  
68040 or faster, System  
7.0 or later, 8MB of RAM,  
2X CD-ROM drive



**THINK BIG,** think different, think how much better off your kids would be if they passed the first grade.

**B**en and Becky Brightly, the Wonder Twins of education, stretch, shrink, morph, and mold themselves into a full house of brain-building games. Each game literally comes alive as the malleable twins shape-shift into action. Kids earn smart stars for their brain bank by doing well at games that have them locate countries on the globe, tell time, make words, and more.

**GOOD FOR GRADES:** 1

**LIKES:** "I liked a lot that they gave you so many different games to play. Almost all of them had a different subject." ■ **Amanda**

"It made you feel good by cheering you on when you got something right." ■ **Christine**

**DISLIKES:** "I don't like how they talk." ■ **Justin**

"I don't like this game because the stuff is too easy." ■ **Jolie**

**SOUND ADVICE:** "None, because it was so fun in every way." ■ **Traci**

**FINAL REPORT:** Gives kids a lot to think about.

## Rockett's New School

**COMPANY:** Purple Moon

**CONTACT:** 888-278-7753 or 650-526-5000,

<http://www.purple-moon.com>

**PRICE:** \$29.95 (SRP)

**REQUIREMENTS:** 33MHz 68040 or faster, System 7.1 or later, 8MB of RAM,  
2X CD-ROM drive



**T**he first day of eighth grade can be traumatic or triumphant, depending on which voice inside Rockett's head you let decide. She can come off as a sniveling pillowcase, a perky Pollyanna, or a downright snot when you pick her reactions to various insults, challenges, and overheard bathroom gossip. Root around Rockett's backpack to access her cell phone, poke through her journal, or snoop through lockers to find out what her new friends really think.

**GOOD FOR GRADES:** 4 to 6

**LIKES:** "It's teenage life and you learn about middle school."

■ **Traci**

"I like how you can look in her backpack." ■ **Justin**

**DISLIKES:** "All they did was talk, talk, talk."

■ **Bruno**

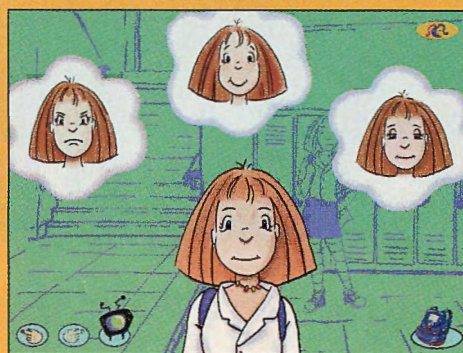
"I didn't like the graphics because she didn't really move that much." ■ **Michelle**

**SOUND ADVICE:** "It should have more games to play and more places to go."

■ **Amanda**

**FINAL REPORT:**

Rockett scores high on concept, low on action.



**ROCKETT DOESN'T WANT TO KNOW** what the Brisbane kids think of her.

## The Smelly Mystery

**COMPANY:** GT Interactive

**CONTACT:** 800-610-4847 or 970-522-1797,

<http://www.gtinteractive.com>

**PRICE:** \$29.99 (SRP)

**REQUIREMENTS:** 33MHz 68040 or  
faster, System 7.1 or later, 8MB  
of RAM, 2X CD-ROM drive



**THE REAL MYSTERY** is why some kids loved this disc and others just didn't.

**GOOD FOR GRADES:** 2 to 5

**LIKES:** "I liked the pictures, the sound, and the colors."

■ **Jonathon**

**E**veryone is guilty until proven innocent in the Little Monster who-done-it storybook in which orange juice smells like peanut butter and flowers reek like rotten eggs. Little Monster takes the case as the chief inspector who is charged with stopping the Evil Smell Switcher. Kids help the chief and his trusty detective, Kerploppus, to sniff out the clues and nail the L'il Critter guilty of this nose-defying crime.

"It was exciting, and it had a lot of activities."

■ **Christine**

"This is one of the best games that I have reviewed. I liked everything." ■ **Michelle**

**DISLIKES:** "I don't like the game because they talk too much." ■ **Jolie**

"I didn't like, in the reading game, that it took so long to get done. In the beginning of that, they named every person that was in the room." ■ **Amanda**

**SOUND ADVICE:** "I would improve the graphics." ■ **Bruno**

**FINAL REPORT:** Smells fun.



Use it a lot. But don't forget to eat, okay?



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**DO YOU YAHOO!?**



# how to use pop-up windows

You'll be in drag-and-drop heaven after following these six easy steps.



**FIND THE INVISIBLE FOLDER** you need for this tutorial on *The Disc*.

Oh, sure, Mac OS 8 is the best thing for your Mac since Screenies, but what can you really do with it? Yes, yes, it's an operating system, and it's a fine one at that, what with thousands of applications and the fastest personal computer hardware on the planet, but that's a secondary concern to the power users out there. Those folks want to know how to squeeze every last cycle out of their processors, and they're willing to do things you wouldn't believe for those cycles. No, really, it's better that we don't talk about just how far they're willing to go.

So many of the tweaks in Mac OS 8 have to do with the interface, and perhaps the greatest of these is the pop-up window, which appears as a tab attached to the bottom of the desktop. Pop-up

windows are simple to make: Just drag a window's title bar to the bottom of the screen and it becomes a pop-up window. Alternatively, you can select "as Pop-up Window" from the View menu and the active window becomes a tab on the bottom of the screen. Pop-up windows are also simple to use: Just click on a tab and the window pops open, or drag an item to the tab and the window lazily reveals itself. Once you click on something else, the window collapses.

Well, that's all well and good, you may say, but so what? What's in it for me? Only one of the most powerful file-storage and -access paradigms to ever hit silicon, that's what. OK, so maybe that's a tad strong, but pop-up windows may change your Mac-using life. Here's how to get started. —David Reynolds

## STEP 1 Create a Filled Tabbed Window



Create a folder on the hard drive partition that contains most of your applications. If you have only one partition, that'll do just fine—create the folder there. Name the folder Drop Zone (or give it any other name you like). Make aliases of all the applications you use on a regular basis and move them to the Drop Zone folder. Make sure you include any applications that you launch via drag and drop. Open the Drop Zone folder and select "as Icons" and "as Pop-up Window" from the View menu. The Drop Zone folder will become an open tabbed window.

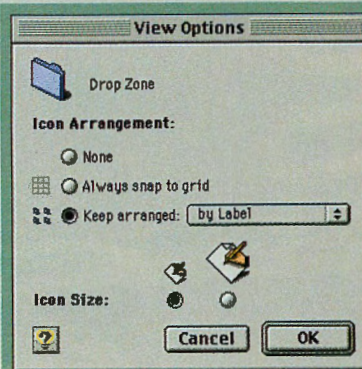
**SCATTERED ALIASES** will soon become precision-arranged drop targets.

## IMPORTANT SAFETY NOTE:

If you make a pop-up window on a removable volume (such as a Zip cartridge) and then take it to a Mac running System 7.x, the window will appear as a regular window. If you move it and then bring the volume back to your OS 8 Mac, the window will no longer be a pop-up window. You'll have to reattach it.

## STEP 2 Arrange the Contents

Because the Drop Zone window is already open from the previous step, you can Select View Options... from the View menu. Select the small icon button under Icon Size, and select

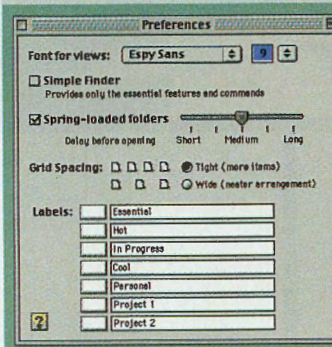


"by Label" from the "Keep arranged:" pop-up menu. Click OK. This assures that your icons don't take up a lot of space and always stay arranged.

**YOU COULD INSTEAD SELECT** the large icon size for easy-to-hit targets.

## STEP 3 Create White Labels

Select Preferences... from the Finder's Edit menu. In the Finder Preferences dialog box, change all the label colors to white.



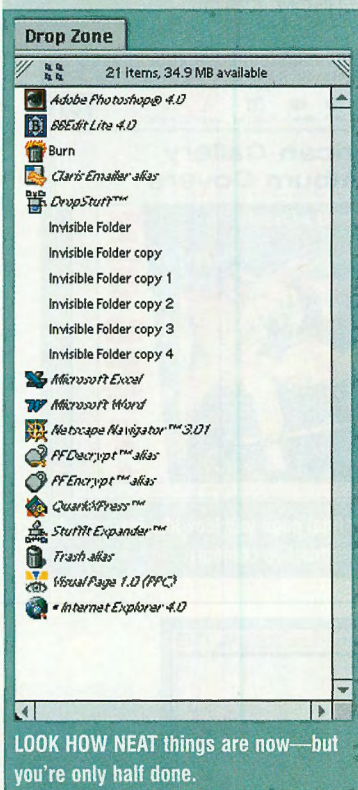
(Click on each label to bring up the Color Picker.) Choosing white keeps the labels you'll be using from discoloring the alias icons. Close the Finder Preferences dialog box.

**YOU ALSO CAN CHANGE** your label names here to personalize your hierarchy.



## STEP 4 Group Your Applications

Open the Drop Zone window and decide how to group your applications. For example, put all the image editors in one group, the Internet applications in another group, the text editors in a third group, and so on. Get the Invisible Folder from The Disc, copy it to the Drop Zone folder, and duplicate it until there is one less invisible folder than there are groups of applications.



LOOK HOW NEAT things are now—but you're only half done.

## STEP 5 Label Your Applications

File	
New Folder	⌘N
Open	⌘O
Print	⌘P
Move To Trash	⌘⌘
Close Window	⌘W
Get Info	⌘I
Label	▶
Sharing...	
Duplicate	⌘D
Make Alias	⌘M
Put Away	⌘Y
Find...	⌘F
Show Original	⌘R
Page Setup...	
Print Window...	

THE LABEL MENU has moved to the File menu in Mac OS 8.

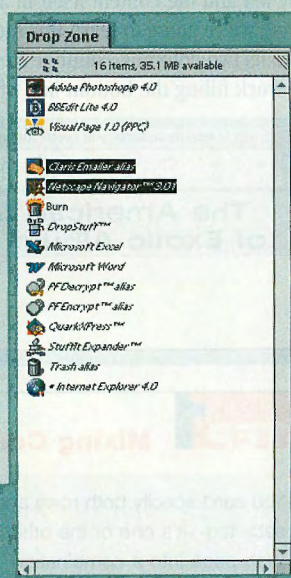
most-used group of applications, and give them the In Progress label (third label in the list). Keep doing this until you have labeled all your application aliases in the Drop Zone. Now change the names of the invisible folders to spaces. You'll have to add a space for each folder after the first: The first folder gets one space, the second gets two, the third gets three, and so on.

Select the group of applications you use most, and give each alias the Essential label (or the top label in the list if you've changed your labels) from the Labels submenu under the File menu. Those applications now will appear at the top of the window.

Select an invisible folder and the second most-used group of applications, and give them the Hot label (second label in the list). Select an invisible folder and the third

None	
<input type="checkbox"/>	Essential
<input checked="" type="checkbox"/>	Hot
<input type="checkbox"/>	In Progress
<input type="checkbox"/>	Cool
<input type="checkbox"/>	Personal
<input type="checkbox"/>	Project 1
<input type="checkbox"/>	Project 2

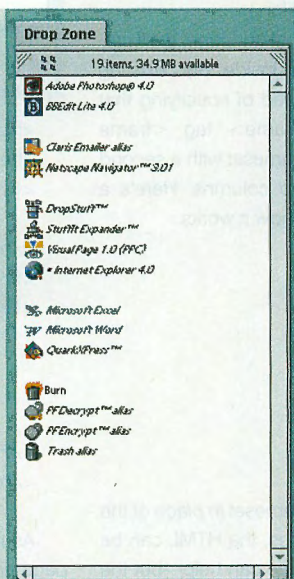
LABELS WILL KEEP your aliases organized.



## STEP 6 Using the Drop Zone

Your Drop Zone is ready to go, complete with spacers between the groups of applications. To use the Drop Zone, just drag a file to its tab, and the Drop Zone will roll open, offering its contents for you to choose an application on which to drop the file. You can also use the Drop Zone as a launcher by clicking on the Drop Zone tab and then double-clicking on an application icon. Either way, the Drop Zone folder will pop shut when the app launches.

The Drop Zone is easy to configure. If you want to add a new application, just make an alias of it, give it the appropriate label, and move it to the Drop Zone folder. Presto, it's ready to go. If you don't like the arrangement of icons in the Drop Zone, just change the label of the offending application, and it will find its proper place in the window. If you need a bigger target on which to drop your files, just open the Drop Zone window, select View Options... from the View menu, select the large icon, and then close the dialog box. If you like really big targets, just open the Drop Zone and select "as Buttons" from the View menu after changing the icon size to the large variety. You can't miss those suckers.

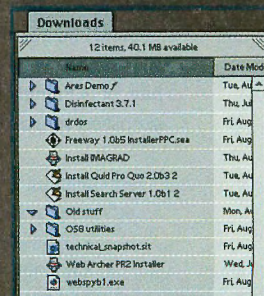


THE FINAL PRODUCTION is ready to pop up at your command.

## Two More Uses for Pop-up Windows

Creating a Drop Zone isn't the only great thing to do with pop-up windows. Here are a couple more:

- Keep your downloads organized—Make a pop-up folder to hold all your downloads. That way, you can see with a single mouse click just what you've been getting via modem, and you'll be more likely to clean it out occasionally. Those old .hqx files can really pile up.
- Easy Apple Menu configuration—Open your Apple Menu Items folder and attach it as a pop-up menu to the bottom of your Desktop. Adding and removing items to and from your Apple Menu will be just a click and a drag away.







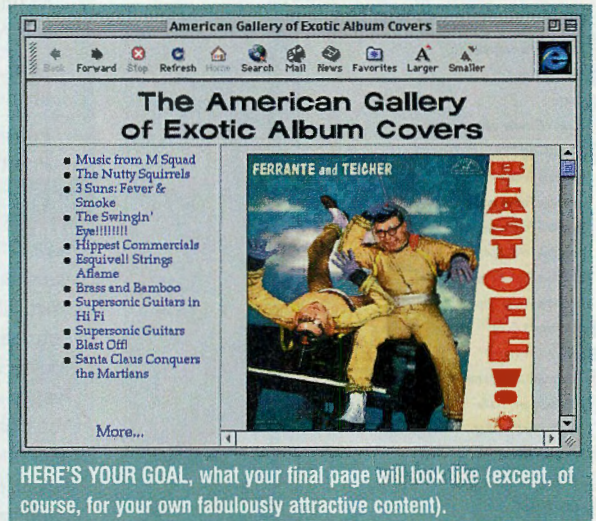
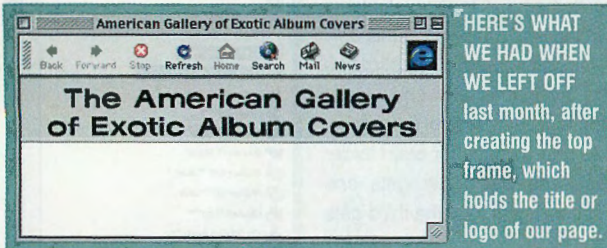
# how to create frames, part 2

Frames can be good things to add to your site. Really, they can.

Last month we showed you how to create a simple frameset for your Web page. We typed out the HTML to make a page with a fixed-size row across the top—a good spot for a site logo or advertisement—and a large row below, where we now plan to put two columns: an anchored table of contents along the left and the content itself in a large pane on the right. The first thing we're going to learn this month is how to split that lower row into its two columns. Number 2 pencils all sharpened? Now let's get to work filling the bottom half of the page. —Joseph O. Holmes



CHECK OUT OUR WEB SITE to see frames in action.



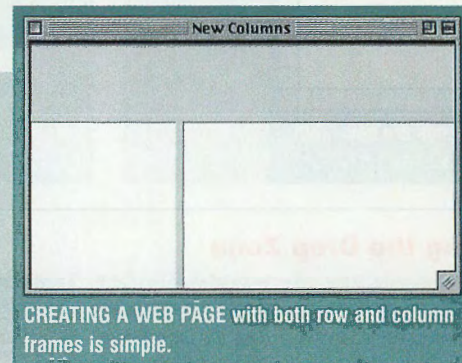
## STEP 1 Mixing Columns and Rows

You can't specify both rows and columns within a single `<frameset>` tag—it's one or the other. So, how do you split up a single Web page into a combination of both, as we need to do on our page? It's actually very simple. Even a complicated set of frames consists of nothing more than rows or columns created *inside other rows or columns*. (Note: too many frames on a page can cause what doctors call Acute Frame Revulsion.)

To add the two columns to the lower half of our page, we'll create a new frameset specifying columns inside our existing `<frameset>` tags. Did you catch that? Instead of specifying that second, lower frame row with the `<frame>` tag `<frame src="xx">`, we'll create a completely new frameset with a second pair of `<frameset>` tags that specifies two columns. Here's a simplified version of the HTML to show you how it works.

```
<frameset rows="60,*">
  <frame src="title.html">
    <frameset cols="35%,65%">
      <frame src="toc1.html">
      <frame src="blastoff.html">
    </frameset>
  </frameset>
```

See how we've drawn a fresh columns frameset *in place of* the second-row frame? If you have a lot of frames, the HTML can be hard to decode by sight—indenting your code can help—but the principle stays the same: Create a new frameset to *replace* one of the existing frames. Let's modify our page to add those columns:



```
<html>
<head>
  <title>The American Gallery of Exotic Album
    Covers</title>
</head>
<frameset rows="60,*">
  <frame src="title.html" scrolling=no>
    <frameset cols="35%,65%">
      <frame src="">
      <frame src="">
    </frameset>
  </frameset>
</html>
```

As my professor from South Carolina used to say, *voy-à!* Our page now looks something like the screen above. (As we did last month, we made some of the illustration frames white so they'll stand out.)



## STEP 2

### Pour In the Contents and Stir

Now let's drop our table of contents into that left-column frame by adding this `<frame>` tag: `<frame src="toc.html">`.

The source file for that frame (toc.html) is simply a standard HTML page with an unordered hyperlinked list of page titles. Remember that a frame's content is nothing more than a standard HTML page, like this one:

```
<html>
<head>
<title>Table of Contents</title>
</head>
<body>

<ul><a href="xpercussion.html">Exotic Percussion</a>
<ul><a href="msquad.html">Music from M Squad</a>

etc. etc. blah blah...

<ul><a href="blastoff.html">Blast Off!</a>
<ul><a href="martians.html">Santa Claus Conquers
the Martians</a>

</body>
</html>
```

Our goal is to have visitors' clicks on the table of contents load a picture into the right-hand column, but we should specify a page to appear in that right-hand column to greet visitors *before* they've clicked on anything:

```
<frame src="blastoff.html">
```

Column frames are specified from left to right, so our column frameset now looks like this:

```
<frameset cols="35%,65%">
  <frame src="toc.html">
  <frame src="blastoff.html">
</frameset>
```

### Hot Tip:

It's not widely known, but visitors can resize frames. Try it. Visit any page with frames, and hold your mouse pointer over a border. If you don't see the resize cursor, it means the Webmaster has included the "noresize" attribute. We don't want anyone resizing our title bar, so, for safety's sake, add the noresize attribute:

```
<frame src="title.html" scrolling=no noresize>
```

## STEP 3

### Specify the Target

Can you spot the problem with the Web page at right?

Very good! Here's a big gold star for your homework. When our visitors click on a link in the table of contents, the source file loads *into that same left column*, replacing the table of contents. What we want instead is to load the page into the *right-hand column*, where our content is meant to appear, leaving the table of contents anchored and awaiting the next click.

To do that, we need to specify the *target* frame for the link. A target is just a pointer to a frame on the page where the link should load. But, in order to point to a target frame, the frame has to have a name. We'll name every frame by adding a "name" attribute to each one:

```
<frameset rows="60,*">
<frame src="title.html" scrolling=no name="title_frame">
  <frameset cols="35%,65%">
    <frame src="toc.html" name="toc_frame">
    <frame src="blastoff.html" name="album_frame">
  </frameset>
</frameset>
```

Now, to give any link a target frame, add a "target" attribute to its anchor tag:

```
<a href="blastoff.html" target="album_frame">Blast
Off!</a>
```

That link now will load the page named blastoff.html into the frame we named album\_frame. We could add a target attribute to every one of our links, but there's a more efficient way. You can specify a target for all links in a certain frame with a single tag. That's just what we want to do: Specify the right-hand column as the target of all the links in our table of contents frame.



**PREVENT THIS!** Make sure that linked pages do *not* replace your table of contents.

To do that, add a `<base target>` tag inside the header of the source file of the frame, not the frameset document. In our case, that means we'll add a `<base target>` tag to the table of contents HTML document, not to our main frameset document.

```
<html>
<head>
<base target="album_frame">
<title>Table of Contents</title>
</head>
<body>
etc.
```

That tag tells the browser that all links originating from this HTML document will load into the frame named album\_frame, our right-hand column. Perfect!





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## STEP 4 Iron Out the Wrinkles

There are a couple more wrinkles to target tags.

Wrinkle one: Whenever you specify a target inside an individual anchor tag, it overrides any overall "base target" attribute. That's useful where, as on our page, we have a "More..." link to load a continued table of contents into the left frame, or a link that points back to a home page or an external page.

Wrinkle two: You can use "\_top" as the target name if you want to force a click to take away all the frames and load the requested page into a whole window. Look carefully: The target name "\_top" begins with an underscore character. Include this attribute in a <base target> tag in the header of your main frameset. That way, if your visitor clicks on a link to another Web site, it won't load inside one of your frames. Instead, it will appear in the whole window. And, as with wrinkle one, the other targets you've specified elsewhere on your pages will override this top target name. The tag looks like this:

```
<base target="_top">
```

### Hot Tip:

The similar target name "\_blank" will load the requested page into a brand-new window, keeping the original window in the background. This is a handy way to keep visitors from wandering away and never returning.

Finally, here are two important reminders before we go:

- ★ To force links to load in a different frame, add the "base target" attribute to the HTML source document, *not to the frames document*.
- ★ To add rows or columns inside other rows or columns, *replace* a <frame> tag with a *pair of* <frameset> tags.

Now your frames page is complete, and you have all the knowledge—if not the taste—needed to put frames to good use. Next month, we'll show you how to prepare your frames for browsers that can't see frames at all, and we'll also have a little gift for all your hard work: We'll show you how to create an *inline* frame, a special floating frame that shows up in the middle of a page like an inline image. That's something you can't do in Adobe PageMill or any other WYSIWYG tool—and didn't we promise you'd be glad that you learned all the HTML behind frames? Until next month, happy coding!

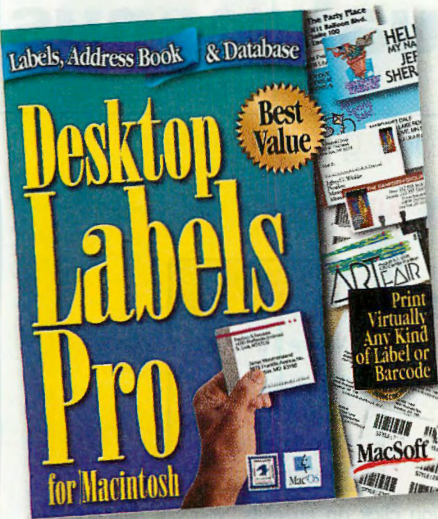
Joseph O. Holmes would love to hear your tips and questions on Webmaster topics. Send email to [professor.web@pobox.com](mailto:professor.web@pobox.com), but please remember, he can't personally reply to every message.

### Hot Tip:

You don't need to load a complete HTML page for each frame. The source for a frame can be an image, for example, or a QuickTime movie or a GIF graphics file.



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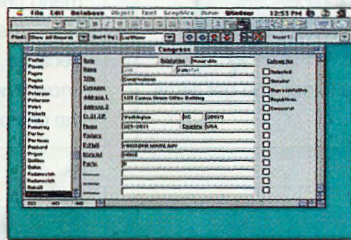
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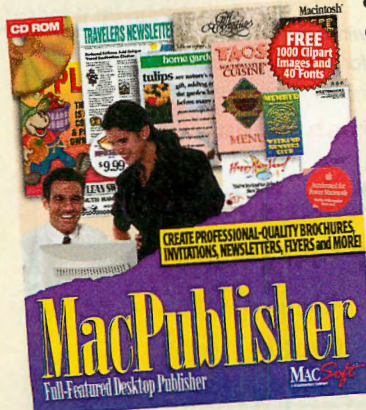
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# know it all

## about contextual menus

Contextual menu madness is sweeping the nation: don't get left behind!



**FIND**  
**CONTEXTUAL**  
**MENU Plug-**  
**ins and**  
**Internet**  
**Address**  
**Detectors**  
**on The Disc.**

**C**ontextual menus are one of the coolest new features of Mac OS 8, yet they often are overlooked and underused.

This feature allows you to access menus according to the "context" of the item selected. Simply press the Control key while clicking on items in the Finder and a menu appears with choices that are specific to that item. Currently, the Finder is the only part of the OS to take advantage of contextual menus. For applications to use contextual menus, they must be written to take advantage of this new feature. (If the application already uses Control-click as part of its interface, the developer must rework that feature as well.) Regardless, you can expect lots of new programs to make use of contextual menus in the near future.

Even though the Finder may be the only application capable of using contextual menus at this point, the feature is very useful—especially if you have a two-button mouse and you program it so that pressing the second button performs a Control-click! Because the Finder is where all file and folder manipulation takes place, it is ripe with contextual opportunities. Each item in the Finder has a different "context." A folder is different from a file, which is different from an alias, which is different from a window, and so on.

—By Buz Zoller

### Special Note:

Have you noticed that the Help option is grayed out in all the contextual menu screen-shots? This is because the Apple Guide extension is disabled in my Extensions Manager. Selecting Help launches Apple Guide, which is a marvelous tool for learning more about the Mac OS. Honestly! I just forgot that I had turned it off!

#### 1. Folder menu



If you Control-click on a folder, you get items specific to a folder.

#### 2. Alias menu



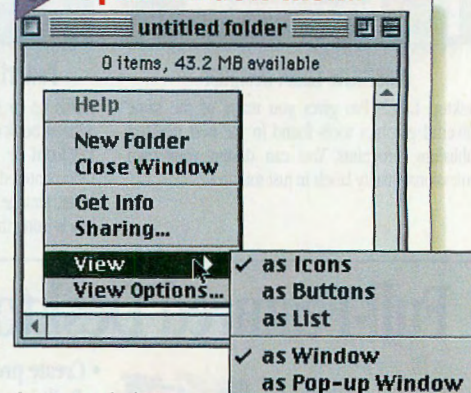
If you click on an alias, you get different menu choices. Because you can't share an alias, the Sharing... option is gone. But because it is an alias, you might want to know where the original item is, so there is the choice for Show Original.

#### 3. File menu



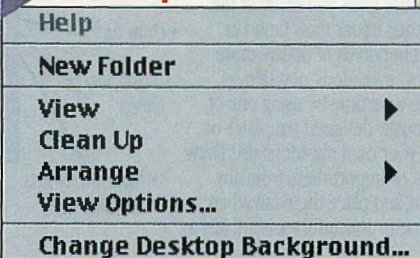
A file has its own context as well, though in the Finder it is treated in basically the same way as a folder, minus the Sharing... option.

#### 4. Open window menu



An open window provides for another context.

#### 5. Desktop menu



Control-clicking on the desktop brings up yet another menu with a different context.

#### 6. Trash menu



One glaring omission occurs in the contextual menu for the Trash. Why isn't there an option for Empty Trash when you Control-click on the Trash icon? What other context is there for the Trash? Maybe we'll see it in Mac OS 8.1.

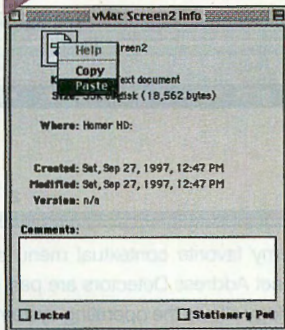


## 7. About menu



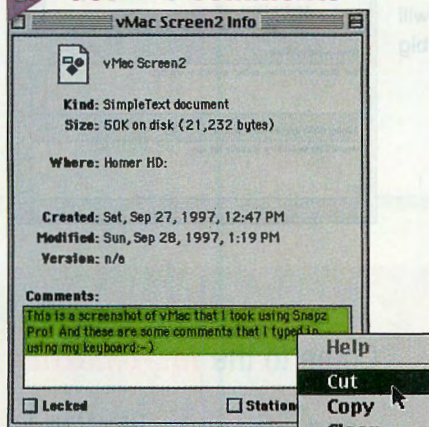
There is a window in the Mac OS that most people don't think of as being part of the Finder, but it is. The About This Computer window, accessed from the Apple menu, has contextual menus as well. Just don't select Get Info or you'll get a -192 error!

## 8. Get Info icon



When contextual menus are implemented in other applications, there will be many more options for programmers to use. You can get a little taste of the possibilities by selecting Get Info for a file or folder. The Get Info box has both an icon area and a comments area. Control-clicking on the icon lets you copy or paste.

## 9. Get Info comments



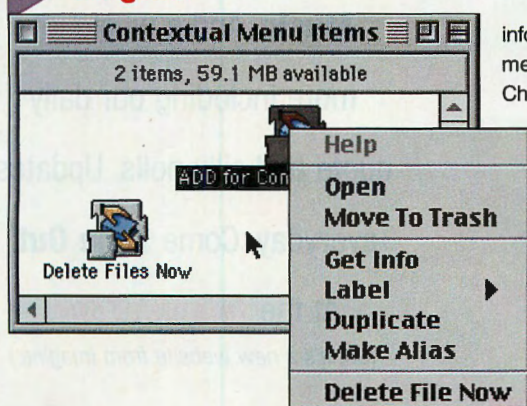
Control-clicking on the comments area brings up a text-specific context. I'm sure SimpleText will have this feature very soon.

## 10. System folder



Apple designed contextual menus to be modular; in other words, so that developers can create plug-ins that add functionality to Mac OS 8's contextual menus. These plug-ins are stored in a folder called Contextual Menu Items inside the System Folder.

## 11. Plug-ins



A lot of plug-ins are available over the Internet. A good place to take a look is the Contextual Menu Archive at <http://www.haxor.com/~th30ne>. This is a great site packed with useful

information. One of my favorite contextual menu plug-ins is Delete Files Now, by Christopher Evans, available at <http://www.poppybank.com/CMM/CMMPlugins.html>. This beautifully simple addition adds an option to delete a file immediately. Be forewarned: Once you delete a file, it's gone. Christopher did add a small bit of security—folders can't be deleted. (Find this and other plug-ins on The Disc).

### Hot Tip:

Use the Tab key to toggle back and forth between the icon area and the comments area in the Get Info dialog box.

# 7 Tips that are cool

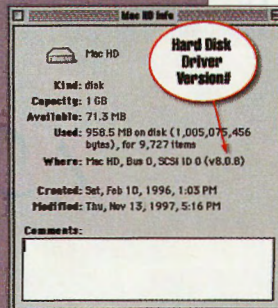
how to

**1** Emulate a Mac Plus on your Power Mac! Get the vMac emulator from <http://leb.net/vmac>. All you need is the ROM from a Mac Plus. Just run the little extractor on an actual Mac Plus and you're ready to go!

**2** If you are using Netscape Navigator 4, use the User Profile Manager application to create different user profiles. Each profile has its own preferences and bookmarks! This is great if you have multiple people using the same computer to access the Internet; they can save their own bookmarks.

**3** Speaking of Navigator 4, this is the first version to support the use of animated GIF files as a background. Too cool!

**4** You can find out the version number of your hard disk's driver by looking in the Get Info window for your hard disk's icon. This is pretty handy if you have a third-party driver installed (such as FWB Software's Hard Disk ToolKit) and want to know if your version is compatible with Mac OS 8.



**5** Preview Release 2 of BeOS supports copying to and from Macintosh volumes. You can download BeOS goodies from the Net on the Mac side and then access them from the BeOS side. Go Be!

**6** Make a QuickTime movie and name it Startup Movie. Put it in the System Folder and it will play during startup—just as soon as QuickTime loads.

**7** Speaking of QuickTime, hold down Command-Option-Q-T during startup to see a little Easter egg from the QuickTime team.



To find out more about the technology and to download Internet Address Detectors, visit [http://apple.script.apple.com/data\\_detectors](http://apple.script.apple.com/data_detectors). Internet Address Detectors are also on The Disc.

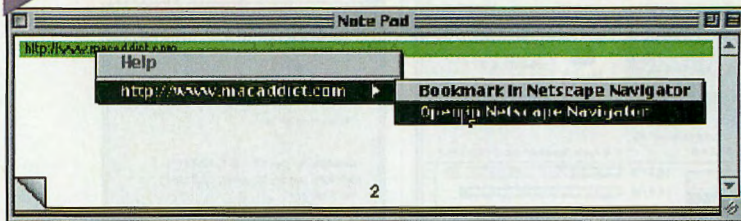
Contextual menus are great and they can make you more productive. Windoze may have had it first, but the Mac does it better. What else is new?

Buz Zoller ([flohead@bga.com](mailto:flohead@bga.com)) is a Mac manager for a school district in Texas. He has worked for Apple and Power Computing, where he created and authored the weekly columns, "Mac OS Didjknow?" and "...explained" for the Power Computing Web site.

### Hot Tip:

Did you know there is a hidden contextual menu in the Desktop Pictures control panel in Mac OS 8? Simply Command-click (not Control-click) to bring up a special menu.

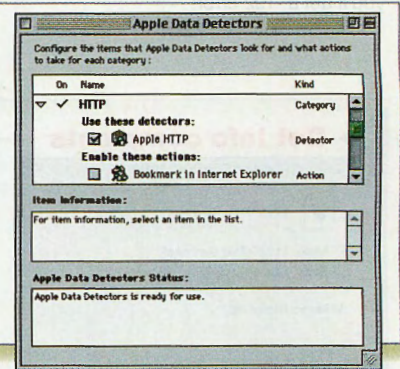
## 12. Address detectors



Another of my favorite contextual menu additions—Internet Address Detectors—comes from Apple. Internet Address Detectors are part of an Apple technology called Apple Data Detectors. This technology allows the operating system to detect what type of data is being selected. Internet Address Detectors detect text and recognize it if it is in the form of a common Internet address. With Internet Address Detectors installed, when you Control-click on an Internet address, a contextual menu appears, offering you choices of what to do with the address.

## 13. Data detector panel

The menu choices in the Internet Address Detectors are determined by information that you specify in the Apple Data Detectors control panel. You can set actions for mail addresses, ftp sites, and the like. Eventually, this technology will extend beyond just the Internet. Apple has big plans for it, so stay tuned!



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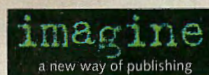
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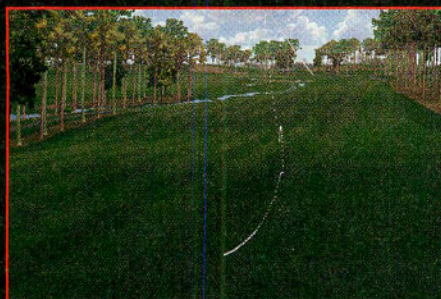
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# ask us

## your questions

We answer your technical questions, no matter how simple or complex.

**Q** Is there a way to calculate folder sizes in Mac OS 8? I really like this feature in System 7.5 but have been unable to find it in Mac OS 8.

**A** Apple didn't take this feature out, it just changed how it works and eliminated the Views control panel. In the Finder, open a window that contains folders, and choose As List from the View menu (you can't see folder sizes if viewed as icons or buttons), then choose View Options. In the View Options window, select the "Calculate folder sizes" checkbox and click OK. Depending on the size of your disk, it may take a while before the Size column begins filling in for folders. Because calculating folder sizes takes time and slows down the Finder, I prefer keeping this option turned off.

Keep in mind that the "Calculate folder sizes" checkbox affects only the topmost window that was open when you selected View Options from the View menu. Under System 7, the Views control panel settings are global, affecting the appearance of every Finder window, but under Mac OS 8, individual windows can be set separately.

This is both a blessing and a curse. The flexibility is nice, but setting each window's View Options separately is tedious. So I use Alessandro Levi Montalcini's Finder View Settings (<http://persoweb.francenet.fr/~alm>). This shareware control panel globally overrides all folder-specific View Options settings, making Mac OS 8 behave more like System 7, and it can

easily change settings for single folders or entire disks with a simple drag-and-drop interface.

**Q** I just purchased an Iomega Zip drive. How can I get my Mac to start from a Zip cartridge?

**A** Removable media drives—such as those from Iomega, Syquest, and other vendors—are very convenient for adding on-demand storage capacity, and they also can be useful for creating emergency startup cartridges. To start from any type of removable media, the cartridge must contain a valid System Folder. If it'll fit, you can simply drag the existing System Folder from your hard drive to an empty cartridge, but the best method is to run the Mac OS installer CD and specify that you want a clean install of the operating system on the cartridge.

Once the cartridge contains a valid System Folder, open the Startup Disk control panel (part of the Mac OS), select the removable cartridge as the Startup Disk, close the control panel, and choose Restart from the Finder's Special menu. If the drive ejects the cartridge at restart or shut down, be sure to push it back in quickly so that the Mac can find it during the startup sequence.

**Q** I just got a new Power Mac, and I love using the Speech control panel. Do you know where I can get more Text-to-Speech voices?

**A** All fans of Apple's speech recognition and speech synthesis technologies should beat a path to the Apple Speech Home page at <http://speech.apple.com/speech>. This place is loaded with interesting information, tips, and additional voices free for the downloading.

**Q** My friend has an Iomega Zip drive on a PC running Windows 95, and I have a Zip drive on my Mac. Can we exchange files using Zip cartridges?

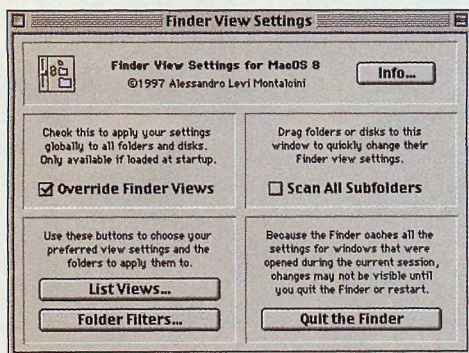
**A** Sure. The easiest way to do this is to have your friend format a Zip cartridge on his Wintel clone, then copy the desired files onto this cartridge. When you get the cartridge, make sure Iomega Driver is in the Extensions folder, and check to see that PC Exchange (part of the Mac OS) is in the Control Panels folder and is turned on.

When you insert the Windows-formatted cartridge into your Mac's Zip drive, it should appear on your desktop, allowing you to drag files to and from the cartridge, just like a Mac disk. If PC Exchange isn't in the Control Panels folder or is turned off, an alert box informs you "This disk is unreadable by this Macintosh. Do you want to initialize the disk?" If you initialize the cartridge, it will be formatted for the Mac, destroying any files it may contain.

Of course, just because you've transferred the files from one



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## CD Remote Programs Upgrade

In my November 1997 column, I lamented the fact that there was no Mac software that could make use of the free, comprehensive database of audio CD titles and tracks called CDDb (<http://www.cddb.com>). Since that time, I've learned that Glenn R. Howes has released a Java applet called InCDius GH, which makes this information available to Mac users (<http://www.xnet.com/~grhowes/html/Software/InCDius.html>). Also, Peter Bierman is continuing work on a similar project called Dynamic Internet Shared CD Overviews, or DISCO (<http://www.spies.com/~lunatic/disco/i2.html>).



machine to another doesn't necessarily mean you can do anything you want with them. If your Mac has the appropriate applications (such as Adobe Photoshop for graphics files or ClarisWorks for word processor files), you should be able to open Windows data documents. But if you want to run Windows programs, you'll need a PC hardware card such as the OrangePC from Orange Micro (714-779-2772, <http://www.orangemicro.com>), or a software emulator such as Virtual PC from Connectix (800-950-5880, <http://www.connectix.com>).

**Q** I recently bought a Quadra 650 running System 7.5. The '040 Cache Switch control panel is currently set in the On position. What is this for?

**A** Motorola's 68040 central processing unit, first used in the Quadra series, uses a copy-back cache that differs from the write-through cache used in the 68030 (caches are fast memory areas that hold recently used data to increase overall system performance). Due to the differences in the way the two types of caches work, many older programs that did not follow Apple's development guidelines presented an alert box immediately upon launching on a Quadra, saying that the application "unexpectedly quit" and listing an error code. Alternately, the program would freeze once you tried to invoke a specific function.

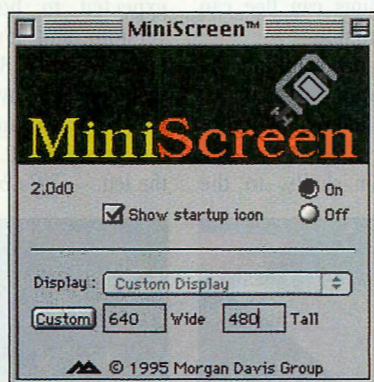
The '040 Cache Switch control panel lets you avoid problems by turning off the CPU cache, but it effectively reduces performance by two-thirds. Because most developers long ago released updates to their programs to address the Quadra quandary, for maximum performance you should leave the control panel in the On position unless you encounter a problematic program that you suspect is incompatible with the cache. If your Mac uses any other CPU besides the 68040, you don't need this control panel, so feel free to drag it to the Trash.

**Q** My PowerBook's display has a resolution of 800 x 600 pixels, but I want to view screens at 640 x 480 to make sure images I'm creating are acceptable for viewing on smaller monitors. What do you recommend?

**A** Unlike traditional cathode-ray tube (CRT) monitors that offer multiple resolutions in the Monitors & Sound control panel, PowerBooks use liquid-crystal diode (LCD) displays that have fixed resolutions because each pixel is controlled by an individual transistor. But there's help.

One solution is to connect the PowerBook to an external monitor that supports 640-x-480-pixel resolution and then turn on video mirroring or Simulscan. If you don't have a multiscreen external monitor, an alternative is to run Daniel Schaefer's freeware utility Small Screen to draw borders on your screen indicating the size of smaller displays, complete with outlines of Finder icons for the hard drive and Trash. This can be useful in some circumstances, but I find not being able to reposition the borders frustrating.

The best solution is to use Morgan Davis' freeware MiniScreen



**MAKE YOUR MAC think it has a smaller screen—use the MiniScreen control panel.**

control panel (go to <ftp://ftp.cts.com/users/king/m/mdavis> and Option-click on MiniScreen). MiniScreen tricks the Mac into thinking the screen is smaller than normal. You can pick from several different preset screen sizes or enter a custom resolution. It works on PowerBooks and desktop Macs.

**Q** After using System 7.5's Find command to locate some files, I could select several in the Items Found window and drag them to the Trash. In Mac OS 8, however, when I drop the selected files on the Trash icon, they spring back into the Items Found window. Why?

**A** This is a known bug, which Apple plans to address in a future System software release. Until then, try the following workaround.

If you create an alias of the Trash, you can drag multiple items to it instead of the real thing. The only problems with this solution are that you have to keep two Trash icons on the Finder's desktop and you get a strange boomerang effect as an outline of the selected files bounces between the Items Found window and the Trash. If either of these drawbacks bothers you, consider using Julian and Steve Linford's UltraFind (<http://www.ultradesign.com>).

This shareware program blows away the Finder's Find capabilities with the ability to locate info on local disks, networks, and even the Net. Disks can be indexed for superfast text searching, you can look for words inside files, and there are options for every conceivable file attribute. Once you have located files, you can delete them by selecting them and clicking on Trash.



**ULTRAFIND BLOWS AWAY Apple's Find command.**

**Q** I heard that Apple has released an update for a peripheral I own. Where can I download this file?

**A** For a list of the latest files posted to Apple's Web site that are available for free public download, visit Apple Software Updates at <http://www.info.apple.com/ftp.newfiles.html>.

**Q** Do you know of a Web site that lists which versions of applications are compatible with Mac OS 8?

**A** One of the pleasant surprises about Mac OS 8 is how smooth a transition it is from earlier versions of the System. Most older productivity applications work just fine under Mac OS 8; more troublesome are third-party utilities, control panels, and extensions because they rely heavily on low-level features of the operating system. However, the majority of vendors and shareware authors have released updates to their programs to ensure full compatibility with Mac OS 8. Ted Landau maintains an indispensable site called MacFixIt (<http://www.macfixit.pair.com/reports/macos8.0.shtml>), which has info on troubleshooting Mac OS 8 along with detailed compatibility information and download links for many programs.

Owen W. Linzmayer ([askaddict@aol.com](mailto:askaddict@aol.com)) is the author of *The Mac Bathroom Reader*. Please submit technical questions or tips via email or c/o MacAddict, 150 North Hill Drive, Suite 40, Brisbane, CA 94005.





# powerplay

MDK delights, FreeVerse at it again, and Peter Lewis a game developer?



FIND  
GREEBLES  
AND CROSS-  
CARDS on  
The Disc.

## Preview

### MDK

**COMPANY:** Playmates Interactive Entertainment

**DEVELOPER:** Shiny Entertainment/Shokwave

**CONTACT:** 714-428-2112, <http://www.playmatestoy.com/pie>

**AVAILABILITY:** Early 1998

It's midnight, and the aliens are threatening to turn the earth into predigested parts for the military-industrial complex. "What do you do?" asks Keanu Reeves, "What do you do?" If you're playing MDK, you slip into a black bulletproof number tighter than Catwoman's vinyl bodysuit, zip up, and prepare to shoot the kneecaps



**THE ALIEN TOURIST TRAP:** Each of the eight levels is a huge city, complete with monuments and cheesy scenery.

off hordes of the wackiest aliens this side of Marathon.

The designers at Shiny Entertainment (the same people who came up with the Earthworm Jim game and cartoon) have mixed together one part Quake and one part Power Pete to create MDK. Kurt, the blender-brained lab assistant and savior of humanity, is armed with only two weapons: a short-range machine gun and a superlong-range sniper rifle. Using the short-range machine gun is pretty straightforward, but trying to use it against a crowd of Grunts and tanks gets you squashed flatter than roadkill.

That's where the sniper rifle comes in.

The MDK engine, in addition to providing a full 3D environment, uses more polygons and collision zones than any other game on the Mac. You can hit an enemy a mile away with the sniper rifle. In sniper mode, you can zoom in on an enemy and shoot his kneecaps away. He will then proceed to scream and cry like a baby until you blow off his head. Using sniper mode is handy, especially because it allows you to pick off aliens before they notice you and call for reinforcements.

Stealth and attention are Kurt's watchwords, because the levels are huge, and you've got to pay attention to detail. You land in cities full of enemies, each with its own architecture and landmarks. Noticing that a shuttle's potentially explosive engines are dangerously close to a wall that you need to blow up before the Grunts can flee can solve a whole world of trouble.

Of course, the game wouldn't be complete without Shiny's trademark humor. Kurt picks up different weapons along the way, ranging from the useful, such as homing sniper shells, to the



**"NYAH, NYAH, YA MISSED ME!"** Aliens tease you for poor marksman-ship, which gives you good incentive to practice.

absurd, such as the World's Smallest Nuclear Explosion (which is useful for opening doors but not for much else). Other devices, such as the inflatable decoy, could work only in a Shiny world. In that world, it only makes sense that the aliens sometimes taunt you by holding targets in front of their faces, or that the most powerful weapon is an airstrike piloted by your pet dog, Max.

The conversion by Shokwave is expected to be identical to the PC version, and it's still under consideration whether 3D acceleration will be included. In any case, Mac users soon will have a chance to play the man on the grassy knoll. Remember, up and to the left. —Jeff Chen



**"COWABUNGA!"** NO SHINY GAME is complete without some sort of snowboarding event.



**WELCOME TO THE ALIEN SMOKING LOUNGE.** Pay no attention to the man behind the curtain.



# Shareware

## Greebles

**COMPANY:** Stairways Software

**CONTACT:** <http://www.stairways.com>

**PRICE:** \$15

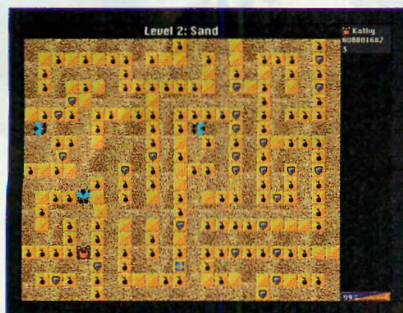
Stairways Software's Peter Lewis has just about every network program under his belt: ftp client, ftp server, Web server, finger client, and talk are just a few of the software pieces this connectivity wizard has cooked up. Until now, he hadn't produced the ulti-

mate network bandwidth chewer: the network game. Greebles changes all that. It's a cute little arcade game that's sort of a mix between PacMan and Sokoban. The player moves through a maze trying to get as many points as possible by smooching bad guys with blocks.

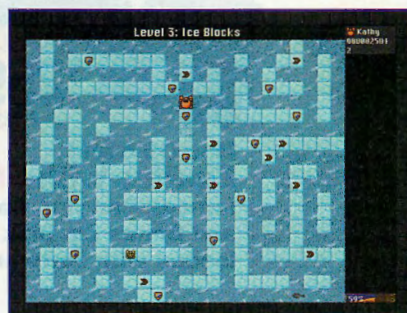
As the player progresses through the levels, different kinds of blocks and bad guys make the game more interesting and more difficult. Some blocks won't move, others give the player a death touch or shields, and

some are standard bonus blocks. The bad guys range from torpid houseflies to fast fishies, but the cockroaches, as in real life, are the ickiest of all. Fair enough, it's a standard arcade game.

Of course, that's without the added frenzy of multiplayer mayhem. Up to four players can join the madness on one Mac. Up to nine Macs can connect with each other over a TCP/IP network. Yup, 36 people can play this charming game at one time. Once again, Peter Lewis proves himself a Net god. —KT



**HOUSEFLIES ARE A SNAP TO SWAT.** The bomb blocks push all other blocks in their path, while the shields offer protection.



**UP A LEVEL, CHEVRONS BOOST your speed.** The fishies swim under the ice. It's fun to watch the blocks slide.



**COCKROACH INFESTATIONS** are always a pest to exterminate. These guys will spoil you in an instant.

# Shareware

## CrossCards

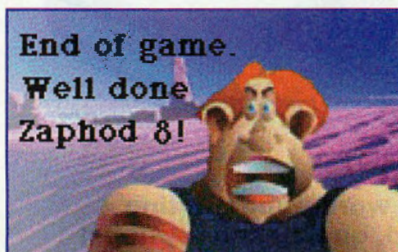
**COMPANY:** FreeVerse Software

**CONTACT:** <http://www.freeverse.com>

**PRICE:** \$14.95

FreeVerse, the company that brought us Hearts, Jared, and SimStapler, brings us yet another brain-teasing time waster. CrossCards is a combination of Scrabble and poker. Four players—any combination of human and computer—compete across a Scrabble-like board, but instead of letter tiles, they are dealt playing cards. Moves are made by placing cards in poker plays on the board. Scrabble scoring is used to give placement bonuses.

Although some of the graphics are less than polished (the statistics window, for instance), CrossCards offers many shortcuts



**THE PLAYER BOX DISPLAYS** the current player and adds personality to the game.

to aid gameplay. If you turn on hints, the game will show you the highest scoring or best strategic move on the board with your hand. Your hand can be displayed above or below the board, or in a floating palette. The game will sort your hand by suit or rank. For the ultimate in cheating, all players' cards may be displayed concurrently.

Computer players don't just plunk down their cards: As in FreeVerse's Hearts, each player has its own personality. The shareware version ships with Donna, Zaphod, and Droppa Mapantz, the Court Jester; registering the game gives you scads more challenging players. When choosing players, you also can determine their skill level on a scale of

Statistics for:	Kathy	Joker 7	Donna 6	Zaphod 8
Games played:	4	0 (0.0%)	0 (0.0%)	3 (75.0%)
Wins:	1 (25.0%)	206	294	412
Best total:	362	215	162	318
Worst total:	233	249.2	241.2	366.8
Best move:	155	94	94	151
Worst move:	55.3	49.8	49.2	67.0

**EVERY CARD GAME NEEDS TO TRACK stats.** CrossCards remembers the best and worst of everything you've ever done.



**DROPPA MAPANTZ, THE COURT JESTER,** is CrossCards' mascot. We think the folks at FreeVerse have become unGooed.

one to 10. FreeVerse has taken a good concept and made an engaging game with its typical attention to humorous details.

In other FreeVerse news, reader Elwin Loomis has ported Jared to the Newton. You all are sick! —KT



**THE CROSSCARDS WINDOW** is all you need to see: It displays current player, score, playing field, and the current player's cards.



**OPTIONALLY, THE HAND** can be displayed in a floating window, instead of in the board. Sorting by numbers is much more logical.

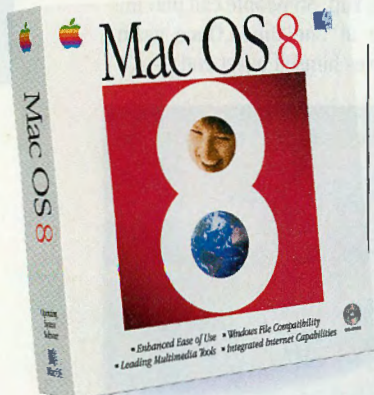




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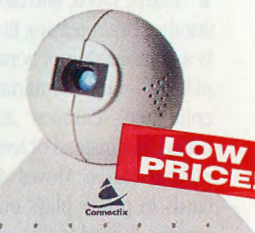
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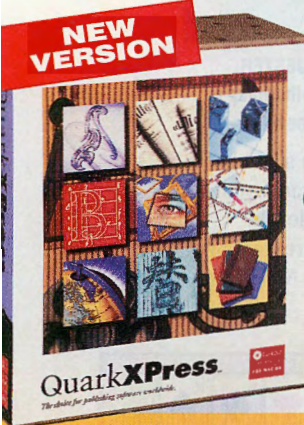
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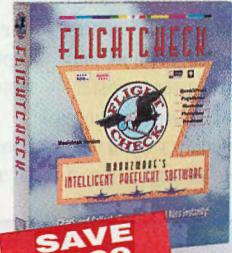
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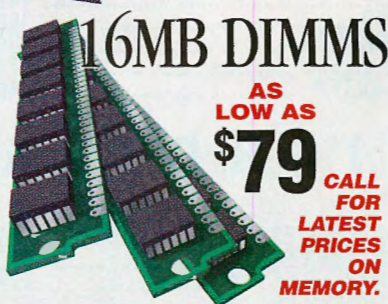
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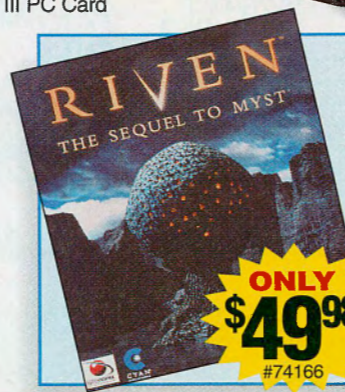
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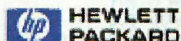
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2MB VRAM/ETHERNET  
**\$649**

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5MP .....	599
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4MV .....	2399
Deskjet 680C .....	279
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PRESSVIEW 17SR .....	1699
PRESSVIEW 21SR .....	2699
PRECISIONVIEW21 .....	1699
Tunder POWER 30/1600 .....	599
Thunder Power 30/1920 .....	849
Thunder Power 30/1920 .....	1099
Thunder 3D 1600 x1200 .....	1699
VIDEO VISION STUDIO 2.0 .....	2999



TWIN TURBO 8 MEG PCI .....	449
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TWIN TURBO 2 MEG PCI .....	199
TWIN TURBO TV CARD .....	99



GCC ELITE 600ET (10PPM) .....	899
GCC ELITE XL-608 .....	1899
GCC ELITE XL-1212 .....	1399
GCC ELITE XL-616 .....	2099
GCC ELITE XL-808 .....	2499
GCC ELITE XL-1208 .....	3199
GCC ELITE XL-1208PLATE MAKER .....	4199

### PROCESSOR UPGRADES

APPLE POWERMAC 132MHZ .....	79
APPLE POWERMAC 150 MHZ .....	149
APPLE POWERMAC 200MHZ .....	249

### Tektronix

PHASER 140 .....	949
PHASER 300X .....	4999
PHASER 350 COLOR LASER .....	2999
PHASER 380 .....	7899
PHASER 450 .....	6099
PHASER 480X .....	14495
PHASER 550 COLOR LASER .....	3999
PHASER 600WIDE FORMAT .....	11999

### UMAX

VISTA Astra 600-LE .....	149
VISTA Astra 1200-LE .....	249
VISTA Astra 1200-PRO .....	429
VISTA Astra POWERLOOKII/III .....	1199/CALL
VISTA Astra POWERLOOK 3000 .....	CALL
Mirage IISE w/Trans. ....	3699

### SONY

Sony 100ES/100GS .....	369/339
Sony 200ES/200GS .....	589/639
Sony 200PS 17" .....	789
Sony 400PS 19" .....	1099
Sony 300SF 20" .....	1349
Sony 500PS 21" .....	1599

### EPSON

STYLUS COLOR 600 .....	269
STYLUS COLOR 800 .....	379
STYLUS COLOR 3000 .....	1679
EXPRESSION/636/EXEC .....	739
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DIMAGE V595 .....	699
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### NEC

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NEC C500 15" .....	429
NEC C400 14" .....	299
NEC E500 15" .....	369
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SUPERSCAN MC-7515 .....	949
SUPERSCAN MC-20" .....	1169
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Global Village Plat 56K EXT .....	139
Global Village Gold II PCM 14.4 .....	49
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Global Village 28.8 PCMCIA .....	179
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Global Village 56.6 ETH/PCM .....	349



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## Macintosh PowerMac's

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Powerbook 3500 350MHz  
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Color Style Writer

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8600/300 32/4G/24xCD/ZIP	2499.
8600/250 32/4G/12xCD	2099.
8600/200 32/2G/CD	1999.
8500/180* 32/2G/8xCD	CALL.
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7300/180 32/2G/8x/DOS Compatible P166	2099.
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7200/90* 8/500/4xCD	CALL.
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4400/200 16/2G/12x/MS office	CALL.
4400/200 32/2G/12x/Pentium	1899.
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6500/250 32/4G/12x/Zip Drive	1799.
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5300cs 32/1G	CALL.
5300cs 16/750	CALL.
5300cs* 8/750	1099.
5300cs/100* 16/750/14.4 Modem	1199.
540c 4/320 Used	999.
520c 4/240	CALL.
520 4/240	CALL.
DUO250* 12/200/Modem	799.
DUO280* 12/240/Modem	999.
DUO280C* 12/240	799.

### Umax Corp.



S910DP 250MHz 64/4G RAID/24x/MVR/Zip/E100	6099.
S900DP 250MHz 64/4G RAID/8x/MVR/Zip/100BT	5999.
S900/250MHz 32/2G/8x/MVR/Zip/100BT	2999.
S900/233MHz 32/2G/8x/MVR	2499.
S900/200MHz 32/2G/8x/4MVR	2149.
J700/180MHz 24/2G/8x/2MVR/33.6	1599.
C600X/280MHz 32/4G/12x/2MVR/10BT/33.6	1999.
C600X/240MHz 32/3G/12x/1MVR/10BT/33.6	1649.
C500I/200MHz 16/2G/12x/1MVR/33.6	1049.
C500LT/200MHz 16/2G/8x/1MVR	999.

### Monitors RASTEROPS HITACHI 3 year warranty

Mc 620 17" .28dp 1152X870	499.
Mc 6315 17" .22dp 1280X1024	629.
Mc 7515 19" .22dp 1600X1200	939.
Mc 801 21" .22dp 1600X1200	1299.
Mc 801HR 21" .22dp 1600X1280	1599.

### SONY

Sony 100ES/200ES	CALL.
Sony 100GS/200GS	CALL.
Sony 200PS/400PS 19"	CALL.
Sony 200SF	649.
Sony 300SF 20"	1369.
Sony 500PS 21"	1649.
Sony 20SE II 20"	1599.
Mavica FD-5 Digital camera	469.
DSCF-I Digital Still Camera	569.

### MINOLTA

Dimage V	595.
Dimage Scan	695.
Quickscan 35	CALL.

### Monitors

#### radius

Precision View 21"	1579.
Presview 21" SR	2899.
Presview 17" SR	1599.
Thunder 30/1600	599.
Thunder Power 30/1920	849.
Thunder TX 1152	1049.
Thunder 3D	1699.
Thunder Color 24/1600	449.
Video Vision Studio 2.0	3399.



### ViewSonic

15GS 15" 1280x1024 .27dp	349.
15GA2 15" 1280x1024 w/spkr .27dp	369.
EA771 17" 1024x768 w/spkr .27dp	529.
EA771B** 17" 1024x768 w/spkr .27dp	539.
17GA 17" 1280x1024 .27dp	569.
P775 17" 1600x1280 .25dp	649.
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G800 20" 1600x1200 .28dp	1049.
P815 21" 1600x1200 .25dp	1399.
G810 21" 1600x1200 .28dp	1179.
P810 21" 1600x1200 .25dp	1249.
PJ800 LCD Projector	4299.



### Apple

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Apple 15"	299.
Apple 1710 17"	649.
Apple 720 17"	CALL.
Apple 750 17"	799.
Apple 750 AV 17"	899.
Apple 850 20"	1449.
Apple 850 AV 20"	1749.

### Monitors

#### NEC

A500 15" 1280x1024 .28dp	329.
E500 15" 1280x1024 .25dp	379.
A700 17" 1280x1024 .28dp	569.
P1750 17" 1600x1200 .25dp	779.
P1150 21" 1600x1200 .28dp	1349.
E1100 21" 1600x1200 .28dp	1199.
XP37+ 39" 1024x768 .85dp	CALL.
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### Macintosh

#### Performas

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6400/180 16/1.6G/8xCD	CALL.
6400/330CS* 12/500/CD/DOS	599.
6320/120* 16/1.2G/4xCD	899.
6320/120* 16/1.2G/4xCD/TV with monitor	1199.
6220/75* 16/1.2G/4xCD	699.
6200/75* 8/1.2G/4xCD	599.
5400/120* 16/1.6/8xCD/15" built in	1199.
5200/75* 8/800/CD	899.
LC580 8/800	699.

### Macintosh

#### Workgroup

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9650/233 48/4G/12x/Internet Ready	4999.
9650/233 48/4G/12x/2GB Dat Drv.	5499.
8550/200 32/2G/CD/Apple Share	4199.
8550/200 32/2G/CD/Apple Share/Dat	4999.
7350/180 48/4G/12x/Apple Share	2999.
7350/180 48/4G/12x/Internet Ready	2899.
7350/180 48/4G/12x	2449.
7250/120 16/1.2G/CD/Networking	1299.

### Apple Processors

Apple 132 MHz 604e	99.
Apple 150 MHz 604e	149.
Apple 200 MHz 604e	399.
Apple 233 MHz 604e	499.



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**RASTEROPS  
MC7515 19" .22DP  
1600X1200 Monitor**

**\$979.**

### Storage



750MB MAC external	269.
750MB MAC Cartridges	55.
750MB MAC Cartridges 3-Pack	149.
EZ135 MAC Cartridges after \$5.00 rebate	9.99.
CD-RW 680 RW External 6xR/2xW	499.
CD-R Media Single/10-Pack	1.99/18.

### Powerbook Hard Drives

1.4GB Toshiba 1401MAV 12ms	179.
2.1GB Toshiba 2103MAV 12ms	249.
3 GB Hitachi Slim 12ms	399.

### iomega

Jaz 2GB Drive External SCSI	599.
Jaz Drive Internal SCSI	299.
Jaz Drive External SCSI	369.
Zip Drive Internal SCSI	149.
Zip Drive External SCSI	149.
Zip Drive Plus SCSI & Parallel	189.
iomega BUZ	189.
3 Pack Jaz Cartridges	240.
10 Pack Zip Cartridges	130.
Single Cartridges for Jaz	89.
Single Cartridge for Zip	13.

### External Hard Drives

IBM Orion 2.1GB SCSI 3.5	279.
IBM Capricorn 4.3GB Ultra SCSI 3.5	349.
IBM Capricorn 4.3GB Ultra Wide SCSI 3.5	499.
Quantum Strata 2.1GB SCSI 3.5	279.
Quantum Strata 4.3GB SCSI 3.5	359.
Quantum Atlas II 4.5 Ultra SCSI AV 3.5	549.
Quantum Atlas II 4.5 Ultra Wide SCSI AV 3.5	649.
Quantum Atlas II 9.1 Ultra SCSI AV 3.5	849.
Quantum Atlas II 9.1 Ultra Wide SCSI AV 3.5	949.
Seagate Cheatah 4.3 Ultra SCSI AV 10000RPM	749.
Seagate Cheatah 4.3 Ultra W SCSI AV 10000RPM	849.
Seagate ST34371N 4.3GB Ultra SCSI 3.5 AV	649.
Seagate ST34371W 4.3GB Ultra SCSI Wide 3.5 AV	749.
Seagate Cheatah 9.1GB Ultra SCSI AV 10000RPM	1049.
Seagate Cheatah 9.1GB Ultra W SCSI AV 10000RPM	1149.

### Printers



HP LaserJet 6LXI/6PXi	385./729.
HP LaserJet 6MP/5M	849./1399.
HP LaserJet 5/5N	949./1199.
HP LaserJet 4V/4MV	1699./2499.
HP LaserJet 5SI/5MX	2299./3399.
HPColor LaserJet 5/5M	3799./4799.
HP OfficeJet 590/1150C Pro	549./899.
HP 1600CM 600 dpi	1499.
HP DesignJet 2000CP	7999.
HP DesignJet 2500CP	9499.
HP DesignJet 750C Plus	4999.

### EPSON

Epson Stylus Color 800/800	279./389.
Epson Stylus Color 1520	779.
Epson Stylus Color 3000	1749.
Epson Stylus Photo	CALL.
Epson Expression 636/Exec	739.
Epson Expression 636/Art	949.
Epson Expression 636/Pro	1279.

### Apple Printers

Apple Select 360	899.
Apple Laser 12/660	3799.
Apple Laser 12/640	1049.
Apple Laser 16/600PS	1199*/1379.
Apple Laserwriter 8500	CALL
Apple Stylewriter 1500	159*/199.
Apple Stylewriter 4100	229.
Apple Stylewriter 4500	329.
Apple Stylewriter 6500	379.

### Tektronix

Phaser 140 COLOR	949.
Phaser 300X COLOR	4999.
Phaser 350 COLOR	2999.
Phaser 380 COLOR	9999.
Phaser 450 COLOR	6099.
Phaser 480X COLOR	14399.



### Accessories WACOM

ArtZ 4x5	139.
ArtZ 6x8	289.
ArtZ 12x12	389.
ArtZ 12x18	599.

### Accessories

Now You See It.



Nexus GA Rage 8MB WRAM	499.
XClaim 3D 4MB	169.
XClaim 3D 8MB	149.
Video Upgrade 4MB	99.

### IXS Video

2MB IMS Video Card	CALL.
4MB IMS Video Card	CALL.
8MB IMS Video Card	CALL.



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Communications

GV 56K Teleport	229.
GV 56K PCMCIA	269.
GV 56K Platinum Pro + Ethernet	379.
GV 19.2 Mercury PB 500 Series	129.
GV 14.4 Gold PCMCIA	69.
GV 14.4 Gold Teleport External	239.
Powerport Platinum 33.6	159.
Teleport 33.6 w/Voice	159.

### Fax Modems

### U.S. Robotics

Sportster 56K	199.
Sportster 56K PCMCIA	259.
Sportster 33.6K	159.

### Memory

16MB Dimm PPC	79.
16MB Simm Performa/PC	79.
16MB for PwrBook 1400/3400	129.
24MB for PwrBook 1400	169.
32MB Dimm PPC	99.
32MB Simm Performa/PC	99.
32MB for PwrBook 1400/3400	199.
64MB Dimm PPC	189.
64MB/128MB for PwrBook 3400c	299./599.
G3 32MB/64MB/128MB	129./279./529.

### Asante

ASANTE 10B/T Ethernet	59.
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### Accessories

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Following Prices valid with  
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The following Software  
are full Versions.



Microsoft Office 97	299.
Microsoft Word 97	199.
Microsoft Excel 97	199.
Microsoft Powerpoint 97	199.
Macromedia Director	499.
Microsoft Access 97	199.
Adobe Photoshop 4.0	349.
Adobe Pagemaker 6.5	349.
Adobe Illustrator	299.
Macromedia Freehand	299.

### Scanners



Agfa Arcus II	1499.
Agfa StudioStar w/ Full Photoshop	879.
Agfa StudioScan Ilii w/LE Photo	599.
Agfa SnapScan 300	299.
Umax Astra 600S w/Photo Dlx.	159.
Umax Astra 1200S w/Photo Dlx.	279.
Umax Astra 1200S w/Photo full	449.
UmaxPowerlook II w/ Photo Full	1199.
Umax Powerlook III w/ Photo Full	CALL.
Umax Powerlook 2000	3350.
Umax Powerlook 3000	CALL.
Umax Mirage II SE w/Trans. Adapter	3699.
Microtek Scanmaker V300	199.
Microtek Scanmaker III Full Photo/Tra. Ada.	1399.

### Newer Technology



MAXpowr 200MHz 604e with SBT	599.
MAXpowr 225MHz 604e with SBT	699.
MAXpowr Citation 200MHz 604e no SBT	349.
MAXpowr Citation 233MHz 604e no SBT	439.
MAXpowr Pro 250MHz 750 512k Bkdsd. Cache	1199.
MAXpowr Pro+266MHz 750 1MB Bkdsd. Cache	2099.
NUpowr 1400 183MHz 603ev 128K2 Cache	549.
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5400 RPM  
Internal

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Internal



## HARD DRIVES

**Quantum**

Description: Quantum Stratus drives carry a 3 Year Warranty. Quantum Atlas & Viking drives carry a 5 Year Warranty.

Ultra SCSI-3

Model	Access	RPM	Internal	External
2.1GB Stratus	QM32160STS	10ms	\$229	\$279
3.2GB Stratus	QM33240STS	10ms	\$279	\$329
4.3GB Stratus	QM34320STS	10ms	\$319	\$369
4.5GB Viking	QM34550VKS	8ms	\$499	\$549
4.5GB Atlas II	QM34550ALS	8ms	\$499	\$549
6.4GB Stratus	QM36480STS	10ms	\$399	\$449
9.1GB Atlas II	QM39100ALS	8ms	\$779	\$829

UltraWide SCSI-3

4.5GB Viking	QM34550VKS	8ms	\$539	\$619
4.5GB Atlas II	QM34550ALS	8ms	\$519	\$599
9.1GB Atlas II	QM39100ALS	8ms	\$799	\$879

IDE Drives

1.6GB Stratus	QM31620STA	10ms	\$155	----
2.1GB Stratus	QM32160STA	10ms	\$189	----
3.2GB Stratus	QM33240STA	10ms	\$199	----
4.3GB Stratus	QM34320STA	10ms	\$265	----
6.4GB Stratus	QM36480STA	10ms	\$349	----



Seagate drives carry a 5 Year Warranty

4.5GB Barracuda 4XL	ST34572N	8.5ms	\$579	\$629
4.5GB Cheetah	ST34501N	8ms	\$679	\$729
9.1GB Barracuda 9	ST19171N	8ms	\$949	\$999
9.1GB Cheetah	ST19101N	8ms	\$1099	\$1149

UltraWide SCSI-3

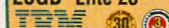
4.5GB Barracuda 4XL	ST24572W	8.5ms	\$629	\$709
4.5GB Cheetah	ST34501W	8ms	\$699	\$779
9.1GB Barracuda 9	ST19171W	8ms	\$999	\$1079
9.1GB Cheetah	ST19101W	8ms	\$1149	\$1229

Fast SCSI-2

23GB Elite 23	ST423451N	8ms	\$1849	\$1949
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Fast&Wide SCSI-2

23GB Elite 23	ST423451W	8ms	\$1889	\$1989
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2.1GB UltraStar ES 09J1034 8.5ms 5400 \$189 \$239

## THE CLUBMAC PACKAGE

ClubMac drives are preformatted and thoroughly tested. ClubMac drives include a 30-Day Money Back Guarantee, Charisma Anubis Formatting Utility software, user's guide, brackets (wide drives include internal ribbon cable), 25/50-pin SCSI cable and power cord for external drives (wide drives include 68/68 pin SCSI cable).

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**ClubMac DDS-3 DAT Drive**

12-24GB

**\$1199**

**CLUBMAC TAPE BACK-UP**

4-8GB DDS-2 Compression DAT Drive \$799  
4-8GB DDS-2 Performance DAT Drive \$899  
12-24GB DDS-3 Lightning DAT Drive \$1199  
15-30GB DLT Drive w/ Retrospect \$2599  
20-40GB DLT Drive w/ Retrospect \$2999

**ClubMac 8mm AIT Drive**

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**RETROSPECT 4.0**

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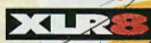
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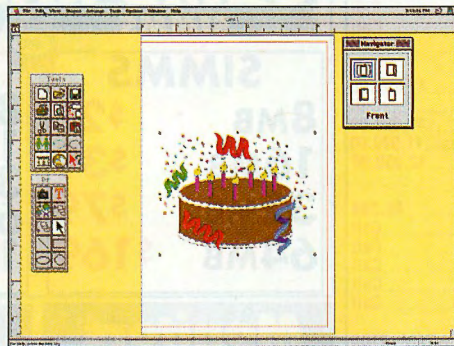
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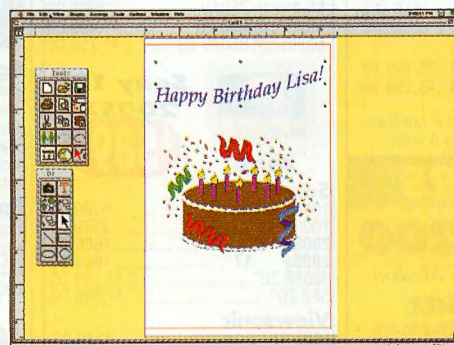
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**What's New**

Saturday, December 28: We take a break until January 3, as... Apple buys NeXT! A conference call yields more details. Meanwhile: Apple buys NeXT! We survey the reader reaction. Also: Apple buys NeXT! The top ten side-effects. Quid Pro Quo 1.0 ships, Cyberdog 2.0 goes alpha, and meanwhile, somewhere, Apple buys NeXT!

**This Issue**

January 1997: We show you powerful and dangerous ways to customize your Mac, look at QuickTime movie-making and creating cool sounds, and much much more.

**Help!**

Our help page answers your questions about the magazine and the disc, lists handy resources for subscribers and provides complete contact information.

**Rvangelist**

Good stuff from Guy Kawasaki's mailing list for Mac loyalists.

**Come see us at Macworld Expo/San Francisco** and enter our prize contest... we'll be at booth 2121 in South Hall.



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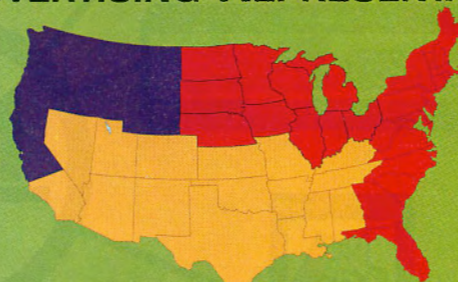


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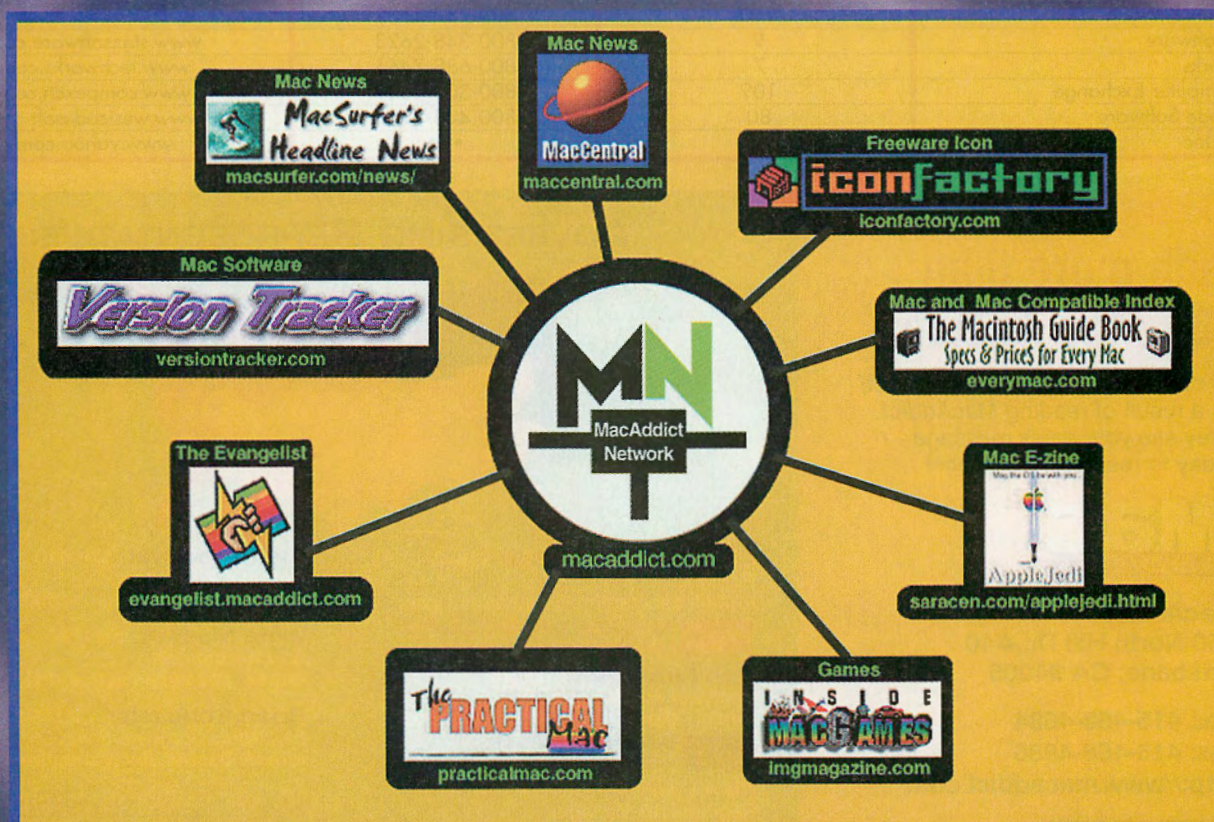
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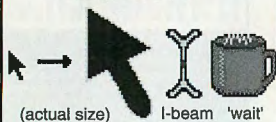
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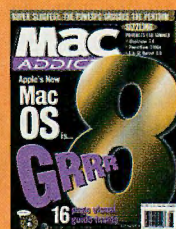
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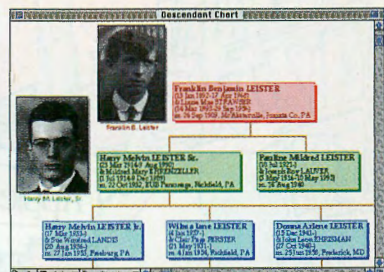
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## FILTERED JAVA

"Flood his mailbox—say that you want 100 percent pure Java," said an angry Scott McNealy, CEO of Sun Microsystems, who then spelled out competitor Bill Gates' email address during a tech conference last November. McNealy, who had just filed a lawsuit against Microsoft for corrupting Java to make it incompatible with non-Windows software, was unaware that Gates' email program, like everyone else's, is set up to filter out any messages with the words "Sun," "Java," "I hate you," "You must die," "thief," and "Scott McNealy."

## Reactive X Fools

"Perhaps only a Roman emperor could have surpassed the influence Gates will have over individual lives in the early 21st century—if he and his company continue unchecked." So said futurologist Ray Hammond in a paper presented during Ralph Nader's Microsoft-bashing conference last November. Hammond also noted that Gates had invested more than \$30 billion in genetic engineering and is now working on mapping human DNA, "the operating system for humans." In the same report, Hammond claimed that it actually was he who tracked down the cure to Agent Scully's cancer and that Microsoft, not the government, had planted the lethal chip during the doctor's so-called alien abduction.

## All So Truism

"Sometimes the technology industry feels like a rural town full of divorced people," reported *USA Today's* Kevin Maney on the chilly atmosphere at a technology conference featuring such notable speakers as Sun Microsystems' Scott McNealy and Microsoft's Bill Gates.

The conference took place on the same day the U.S. Justice Department publicly cracked down on Microsoft.

## A Running Gag



Although the Mac beat Max at Marathon, Max beat the Mac at the 10-yard dash!

By reader David Heinecke

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## Psycho-delic, Baby

John D.

Rockefeller wanted to dominate oil, but Microsoft wants it all—you name it—cable, media, banking, car dealerships," said consumer advocate Ralph Nader, who warned that the nation's donut shops, nail salons, and Jiffy Lube franchises may also be at risk unless Britain's international man of mystery Austin Powers can stop Bill Gates in time.

## DOING THE ROUNDS

**Round 1:** "What would I do? I'd shut it down and give the money back to the shareholders." —Dell Computer Chairman Michael Dell in response to a question about what he would do if he were in charge of Apple.

**Round 2:** "We want to tell you, Michael, that with our new products and our new store, and our new building and manufacturing, we're coming after you, buddy." —Steve Jobs at a press conference to announce Apple's new method of selling computers. Jobs targeted Dell by projecting an image of him on a large screen with a bull's-eye superimposed.

**Round 3:** "Ow, my ear!" —Steve Jobs as Michael Dell leaned over in a fit of frustration and bit off Jobs' right ear lobe.



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Doodle by Mark Simmons



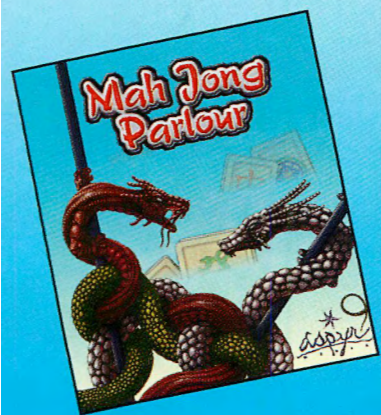
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